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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

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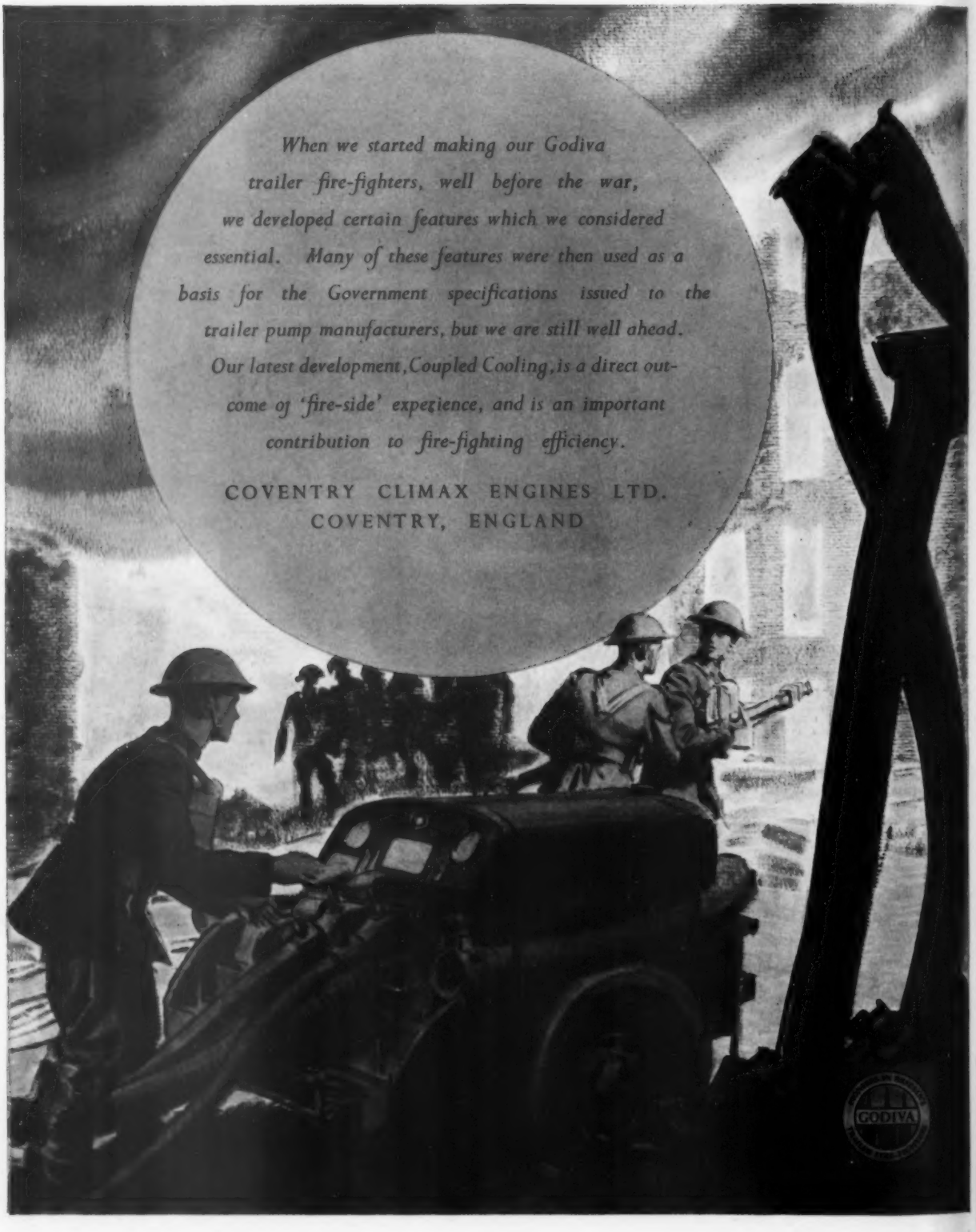
JUNE, 1942

Vol. 95, No. 6

Blazing Gasoline, from Wrecked Tank Cars, Carries Fire to Town

A CASE SHEPPERD MANN PUBLICATION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FIRE ENGINEERING

A Consolidation of Fire and Water Engineering, The Fire Engineer and Fire Protection

CONTENTS

Vol. 95 — June, 1942 — No. 6

	Page
With the Editor By Fred Shepperd	335
Alarm Service in Civil Defense By A. C. Hutson	336
New York Continues Drive for Auxiliary Fire Fighters By Jerry Daly	338
Mixed Signals Create Chaos at San Francisco Raid Alarm By Bob Greenock	339
One Hundred Trucks Burn in New York City Garage Fire By Bill Herries	340
Deferment of Firemen—A Symposium	341
Much Fire Apparatus Needed for Defense Preparation	344
Annual Meeting of I. A. F. C. Called Off Because of War	348
Correspondence	350
The Round Table Fire Hazards from the Storage of Gasoline	351
Questions and Answers	355
The Watch Desk By Roi B. Woolley	356
False Alarms	358
Warfare By Roi B. Woolley	360
What's Burning	362
Convention Dates	364
Manufacturers' Announcements	376

FRED SHEPPERD
Editor
N. N. WOLPERT
Assistant Editor

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SOMETHING brand new in Fire Conventions is scheduled for this year.

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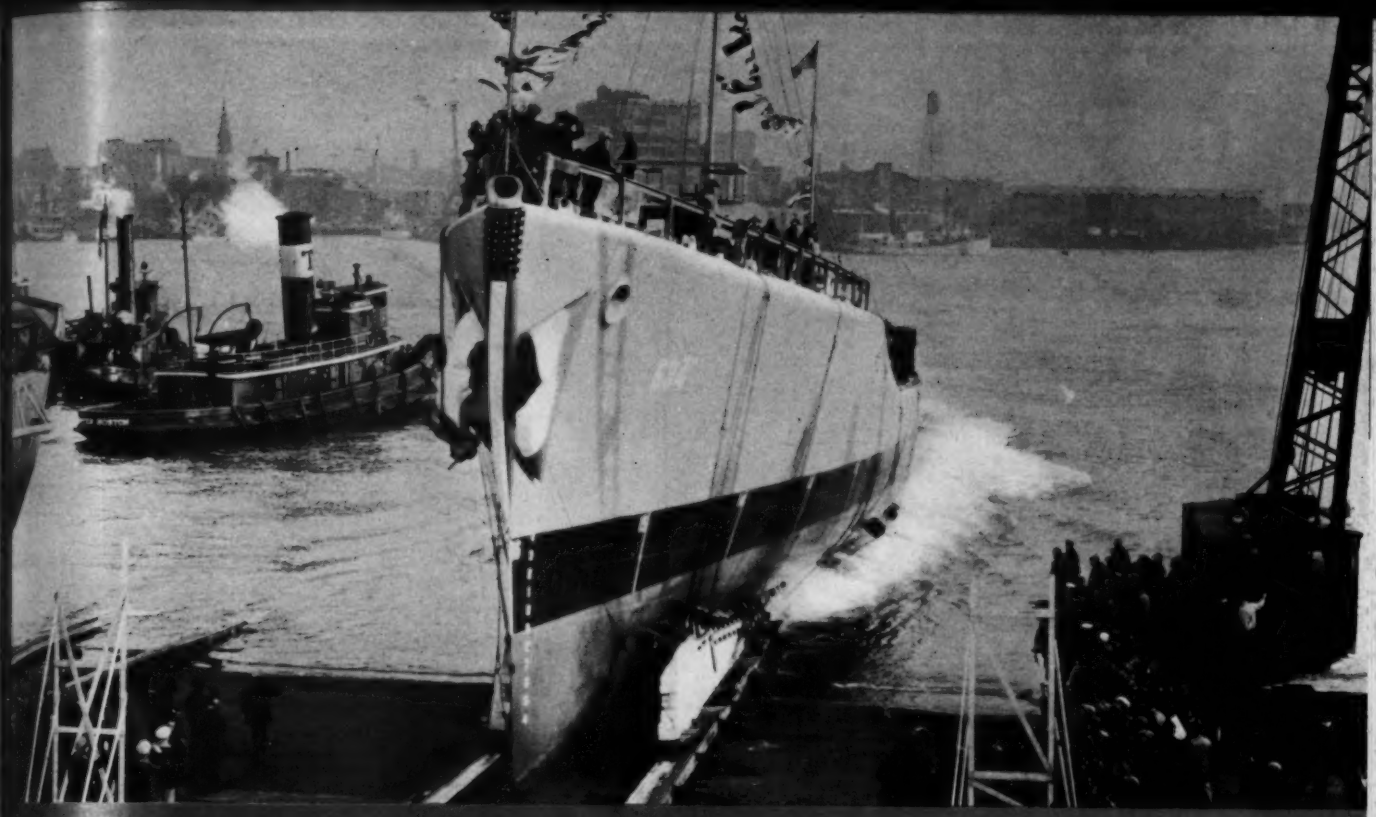

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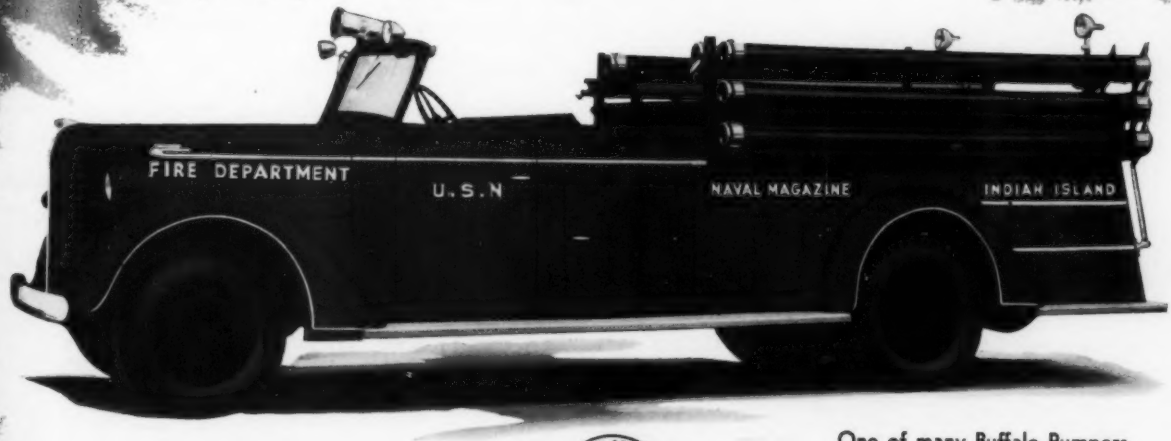

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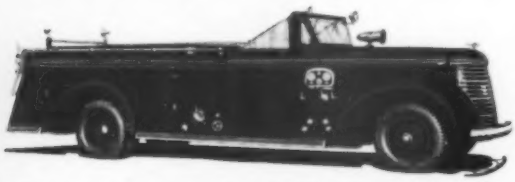
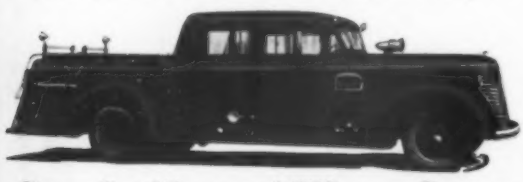


Open type streamlined 750 g.p.m. Pumper



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Motor Apparatus Service
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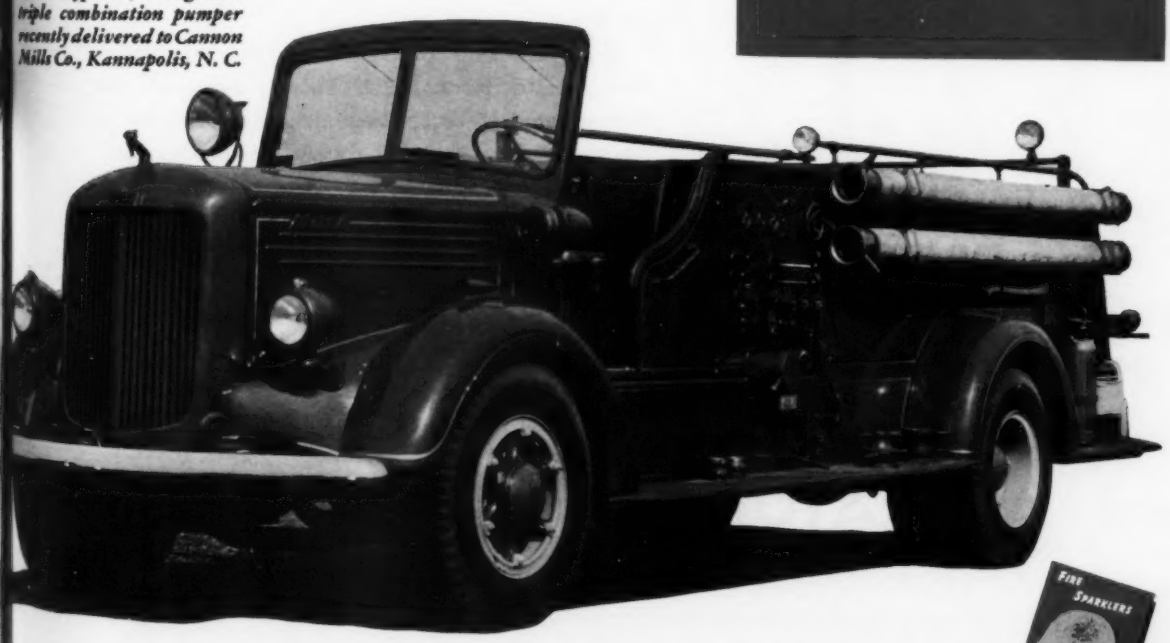

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FIRE
ENGINEERING

JUNE, 1942 VOL. 95. NO. 6

With the Editor

Coal Storage May Present Problems

The War Production Board recently called upon all consumers of coal, especially war users and industrial plants, to stockpile coal at once to the limit of storage capacity.

This move was necessary in order that rail movement of coal be spread over a longer period and thus avoid an overload of facilities later in the year when movement of war materials will be even heavier than it is today.

Many establishments, it may be expected, will accumulate more than a normal year's supply in order to guard against the possibility of running into a scarcity next year.

The storage of these excess quantities, particularly where inadequate facilities are available, may create new fire hazards. Some types of coal are subject to spontaneous ignition if piled too deeply, and if such storage is encountered, the Fire Department may have to take a hand.

Inspection of coal storage in industrial plants must today be included in the supervisory work of the Department if coal fires are to be prevented.

Enemy Air Attacks Now More Likely

Since the bombing of Tokio, and a simultaneous announcement that American bombers piloted by American flyers will soon join the attack on Germany, the danger of enemy air attacks on our cities has increased to a marked degree.

The desire for retaliation is very apt to outweigh military judgment. Public clamor for revenge ofttimes forces an army to undertake operations which offer no promise whatsoever of military success.

The oriental trait of "saving face" is found in almost every human being, though under different labels.

That air raids will be attempted, even though they are foredoomed to failure, is quite certain. They are needed to quiet the demands at home to "do something."

But no sustained or mass bombing is expected—it is still not possible. No enemy bases are yet available near either seaboard, and bombing from plane carriers is still too risky. Long range bombers may be used, but with these the bomb capacity is far too low, after needed fuel supply has been taken aboard. Furthermore, long range bombing is definitely unprofitable where planes must travel across thousands of miles of water before reaching their targets.

If air attacks come, they will of necessity be very limited in scope and destructiveness.

Fred. Sheppard

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Alarm Service in Civil Defense

By A. C. HUTSON*

THE oldest form for transmission of messages over long distances dates back to the early ages of man. Code was transmitted by sound or vision, and interpreted by the receiver. The heliograph, tom-tom, smoke signal and church bell were examples of this. The Morse telegraph was the first of these to achieve the basic functions of dependability, ease of use, speed and simplicity.

The value of the telegraph as a means of notifying some one at a distance that help was wanted, or to advise that a person was on duty, was quickly recognized, and the fire alarm telegraph system, police telegraph system and various other systems were born. These systems made use of code numbers, consisting of dots, spaced so they could be counted.

Modifications of the code transmission have been brought about, in part due to the lack of knowledge of Morse code by senders and receivers. These modifications are exemplified by the teletype and the telautograph, which combine greater flexibility with a permanent record.

Code Transmission Augmented by Telephone and Radio

The next step in giving a flexibility which placed signaling service in the hand of the multitude was the telephone, where the voice took the place of code or symbols.

The latest entrant in the field of communication service is the radio, which permits code signals and voice transmission and has other possibilities.

Each of these various forms of signaling has advantages and disadvantages. Each has been developed largely along one line, and while there is overlapping of functions and performance, no one system of signaling can be considered as overshadowing the others in the entire field of signaling service.

The telegraph signaling system has several inherent qualities which make it a very desirable agent for the transmission of distress signals. These qualities have justified the continuation of the use of telegraphic code signals in the fire alarm field. The outstanding qualities were the ability to provide a point of sending which would be available to the public, to have equipment which was not delicate and would remain usable for long periods of time without care, to indicate in a readily understandable manner the location of the call, and to permit quick resumption of service if interruption should occur. The value of these qualities has been recognized not only by those signaling engineers employed by the municipalities but by those private companies who render fire protection signaling service.

*Assistant Chief Engineer, National Board of Fire Underwriters, New York. Paper read at New Jersey Section meeting of the International Municipal Signal Association, May 20, 1942.

Motorcycle Messengers Serve in the London (England) Civil Defense Set-Up

For civilian defense there are several items which have to be considered. One of paramount importance is the cost of installation and of operation. Another, and probably a controlling one, is that civilian defense is not a simple matter of calling the fire department. It involves the probability of transmitting a mass of information not only as to fires but also bombing, police, rescue, road clearance, utilities, etc., which cannot be handled by code numbers. A third consideration is that civilian defense plans could not be built on the basis of each individual community, but must provide for large areas. The fire alarm telegraph systems did not lend themselves to this. A fourth reason for using the telephone system for the basis of signaling service in civilian defense was that much of the needed equipment was already installed and additions could be readily provided.

The understanding as to the arrangement for the use of the telephone are:

A control center where a suitable number of lines will be run in from the telephone exchange, or from two or more exchanges where possible. This number of lines will take care of incoming calls originating in the telephone system, and will provide outgoing lines to all essential operating departments needed for civilian defense. Special lines to industries, schools, etc., will be provided as requested by the local head of civilian defense. In larger communities there may be sub-control centers to expedite the dispatch of emergency work. There may be a reserve control center, to which the personnel could be shifted, which could provide equal service.

An existing telephone in each warden's district, preferably one near a corner, will be recognized by the telephone company as an emergency phone. Provisions will be made so

that all other phones can be killed at the exchange if desired.

Under extreme air raid conditions it is thus evident that the means of transmitting telephone messages from any part of the city to the control center or to any city department will consist of these wardens' phones, and probably some from important industries and schools.

There will be in many cities, a fire alarm telegraph system and a police alarm system, which extends directly to their respective headquarters, and in some instances to the control center.

No definite requirements have been laid down as to permissible use of police radio from prowl cars, but it is assumed it may still be used, although other radios may be cut out.

Sending of Aalrms Minimized by Presence of Wardens

During air raids, wardens are patrolling the streets, and others are supposed to be indoors. Eventually the wardens are to be provided with hand pump tanks and it will be their duty to aid the householder in extinguishing fires.

With only the wardens, the police and the auxiliaries on the street, there should be little sending in of alarms, either by telephone or by fire alarm, except that done by the warden. Under most conditions it would be desirable for the warden to transmit fire alarms by telephone, as often additional needed information can be given. However, if such cannot be conveniently done, or the telephone is out of service, the fire alarm telegraph should be used for fires, and the police telephone system for other information.

It was thought by some that amateur radios would be of value in connection with air raids, but apparently the possible use of the radio to give aid to the enemy has overshadowed the value for communication. So far there has been no ban placed upon the police radio; its very general use during an air raid appears somewhat questionable; it certainly should be kept in service and used when no other means of communication is available.

It cannot be contradicted that at time of an air raid, communication is an essential for protection of life and property. With all of the possibilities for the disruption of any communication system, it is of the greatest need to have as many possible ways of transmitting messages as can be readily arranged. In some cases bicycle or foot messenger service must be resorted to.

With the above in mind, it is next advisable to see in what way all of the available means of communication can be incorporated into a whole, and not have overlapping and interference in the transmission of information on which operations are to be based.

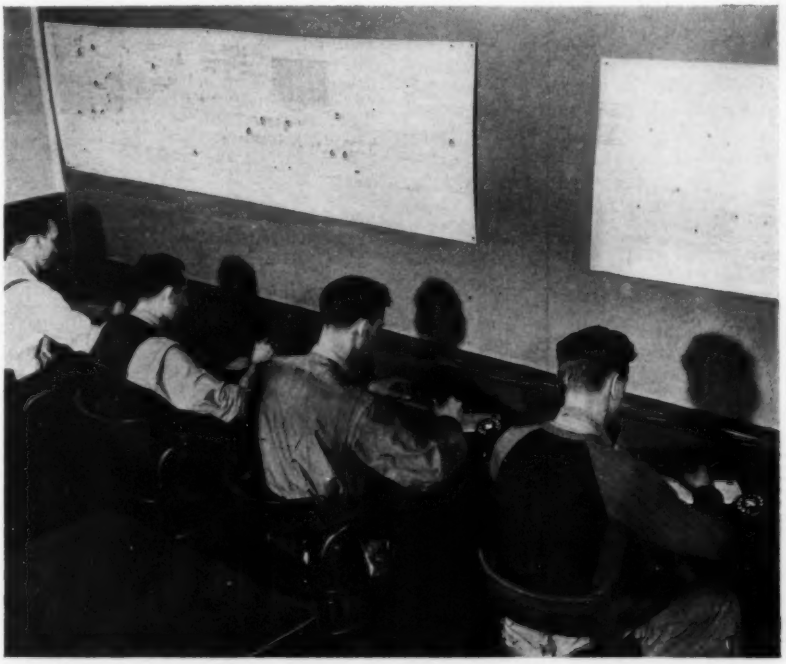
First, on the basis of the warden's telephone being the primary means of keeping the control center and the fire department informed of conditions, it is essential that the public be educated not to transmit alarms for trivial fires, and an incendiary bomb is a trivial fire until the building in which it falls becomes so involved as to be beyond control of the facilities which the wardens have and endangers other buildings. This means that the citizen should not telephone the alarm in, nor send a call from a fire alarm box. The telephone company may have made it impossible for the person to telephone the alarm, by cutting off phones not reserved for the wardens. It may be necessary for the warden to place an auxiliary policeman or fireman, or detail some one else, at each fire alarm box and police box, to prevent its general use. It is believed that during an air raid few people other than the wardens will be on the street. Also that the wardens will know of most bomb hits and will be at work on those which are most serious. As it will be recognized that he is in command, others will leave it to him to assume the responsibility of deciding when and how to call the fire department.

The control center is the point where all information, applying to every condition in the territory, which may in any way require attention will be collected. At the center there must be a representative of the fire department. It is not essential that this control center be the actual point from which the fire department will be controlled and operated. In fact in the larger cities it would not be possible.

Incidents concerning the fire department will be passed on to fire department or fire alarm headquarters, and from that point the necessary assignment of apparatus will be made. Thus the fire department will receive much needed information as well as alarms from the

PRACTICAL TRAINING FOR AUXILIARY FIREMEN

Because of space limitations, it has been necesary to withhold the current installment of "Practical Training for Auxiliary Firemen" from this issue. The series will be resumed in the July issue and, it is hoped, will be continued thereafter without interruption. The Editor



Emergency Messages Are Received and Handled at the Control Center

control center, and may also get alarms from the fire alarm system and still alarms at fire stations. There can be constant communication between the control center and the headquarters used by the fire department, thus assuring full knowledge at both points of all happenings. The fire chief and his staff know their city and therefore are best able to know the seriousness of any incident that may be reported. The control center may have several communities in his area, and it would be to him that requests for outside aid would be handled.

Normal Running Card Discarded

During air raids, the normal running card will be discarded. Not more than one piece of apparatus would be sent to any first alarm. The auxiliary fire department would be used in residential areas in preference to the regular equipment and men, who would be used in high value areas, and where fires threaten to become conflagrations.

Many volunteer and other fire departments use outside sounding devices, such as bells, whistles, sirens, etc., to advise its members that there is a fire or as to the location of the fire. For these conditions it will be necessary to discontinue the use of such outside devices during an air raid or a blackout. The regular firemen and all auxiliary firemen should have definite assignments as to where to go immediately upon the receipt of an air raid or blackout. Enough firemen must respond to each fire station to adequately man each piece of apparatus in service and reserve, and auxiliary firemen must be pressed into service to fill out the company strength if necessary, and to man reserve or civilian defense apparatus. As in the case of paid departments, only one piece should respond to a fire unless in the opinion of the chief or the control center, more apparatus is needed.

Finally, it must be recognized that under bombing conditions, even more than normal times, planning before hand is essential and every man in the fire service, including the fire alarm men, must realize that conditions will require the utmost of effort, with the maximum of use of such auxiliary forces and apparatus as may be available.

As a final word, it is imperative that those in authority have full knowledge of events, including fires, and to remember that fire bombs are not the only cause of fire during an air raid.

NEW YORK CONTINUES DRIVE FOR MORE AUXILIARY FIRE FIGHTERS

Nearly Double Present Enrollment Desired; 55,000 Now Signed Up

By JERRY DALY

NEW York City has approximately 55,000 volunteer auxiliary fire fighters of which 36,000 have completed their course of training. The balance are still in school. The metropolis requires about 45,000 additional to bring its civilian volunteer fire fighting force up to estimated strength. Many of the original crop of last summer's charter members or enrollees have gone with the draft to military service or have enlisted with the colors. Still others of the first batch who are employed in other city departments, have either been recalled by those departments for emergency protection purposes, or they have enlisted in the City Patrol Corps which is an adjunct of the Police Department.

The Fire Department has issued and reissued poster appeals for enrollees. The radio, screen and press have been utilized. Fire Commissioner Patrick Walsh has made many speeches calling all men to volunteer. He has also made fervent appeals to the regular fire fighters hovering near the service and age limits, to stay in the department and not allow themselves to be lured into private jobs with bait of war-time high wages. At every social and official departmental gatherings during the past winter and spring Commissioner Walsh has made a personal appeal to all those eligible for retirement, (excepting the aged or injured) to stay in the department and be loyal to the municipality that provided them with a good living, good pay, an eight hour day and with security and pension rights. Since Pearl Harbor 220 officers and men retired on pensions up to May 31. Of this number thirteen of them were for physical disability in the line of duty. They received higher pensions.

The auxiliary fire fighters have not as yet been equipped by the government, nor has the department been in receipt of any auxiliary fire fighting appliances. The auxiliaries have been diligently trained and rehearsed. Assistant Chief (in command) John J. McCarthy who is in charge of all fire defense activities, has planned and prosecuted a program of instruction which has embraced about everything an auxiliary fire fighter ought to know. Outdoor drills are held on week-ends by Division and Battalion groups, as well as on Sundays aboard ten fireboats and in the high pressure pumping stations.

Recruiting is still going on. At the City's information center for defense activities, 42nd and Park, in Pershing Square, all municipal defense projects have attractive exhibits, lectures and literature. The Fire Department's demonstration has the novel inducement of a uniformed woman who circulates through the audience with application forms and talks up membership in the fire auxiliary corps. She is Mrs. Edward P. Fenety, wife of the Lieutenant of Engine Co. 95 who is now on light duty because of an accident a year ago which smashed him up a bit. He has taught her much about incendiary bombs and similar instruments of destruction and how they should be treated. Mrs. Fenety is a member of the New York City branch of OCD but has been allocated to the Fire Department's endeavor to get more auxiliary members.

New York's Woman Auxiliary Fireman

Every evening of the week excepting Sunday, Fire Department radio station WNYF broadcasts a bulletin to the regular fire fighters and the volunteers as well. It is a daily feature at 7:30 o'clock and it contains important information concerning the administration and the activities of the fire auxiliary corps as written by Chief McCarthy. Station WNYF operating on 1630 kc is also a channel of official emergency information to the officers and men of

the department in addition to routine fire alarm signal traffic. Instead of relying on the old circuitous method of telephone messages, the New York Department recently adopted a new signal in its fire alarm telegraph code which notifies every fire station to tune in on WNYF and within two minutes an official announcement of emergency importance is made. The fire telegraph signal to all fire houses to turn on the radio to station WNYF is "65-2" and it was gleaned from the original signal "65" which still means "use the telephone." The addition of terminal "2" means "use the radio."

Emergency defense activities in the New York Department are now centered in a separate division with headquarters in the fire station at Lafayette and White near the Municipal Building. Batt. Chief Fred. J. G. Wedemeyer, one of the trio who flew to London in October, 1940, and was there during aerial bombardments for two months, is in charge of this division. The administration of the auxiliary corps is its principal activity. Division Chief Peter Loftus is in charge of all the field work of the corps.

The New York department has also a corps of volunteer auxiliary fire telegraph dispatchers and a volunteer auxiliary medical unit. The latter comprises about 100 doctors who work in cooperation with the regular staff of nine medical officers. The auxiliary telegraph dispatchers like the doctors are a specialized group of about 150, divided among the five central alarm stations—one station in each borough of the greater city. They were selected for their known interest in the fire service and for their recognized capabilities. Hundred of emergency telephone operators recruited from other municipal departments are now "breaking in" on the telephone switchboards of the fire department.

Vacations for San Francisco Firemen

San Francisco, Cal., firemen are entitled to vacations, the Board of Fire Commissioners recently ruled but, like the little girl whose mother told her it was okey for her to go swimming as long as she didn't venture into the water, firemen on vacations won't be allowed to go anywhere.

The Fire Commission, meeting jointly with the Police Commission to determine policy to follow in the cases of both departments, agreed that the men can have fourteen-day vacations, to be regulated by the following provisions:

1. All members must be in the city and available from sunset to sunrise.

2. All members must be ready for instant duty and, in event of an air raid alarm, must report for duty immediately. Vacations will be considered terminated at the sounding of such an alarm and, until further orders from the departments' respective chiefs.

3. Should an actual emergency arise, vacations will be cancelled immediately.

The commissions ruled that any overtime accumulated during the emergency will just have to accumulate until the war is over. In the past, men accumulating overtime were allowed to add it to their vacation periods.

BOB GREENOCK.

MIXED SIGNALS CREATE CHAOS AT SAN FRANCISCO RAID ALARM

Mistaking Red for White at Control Center Causes Trouble

By Bob Greenock

AN unidentified plane, later identified as friendly, touched off a comedy of errors in San Francisco's second daylight air raid alert which came on May 12.

The filter room of the Fourth Interceptor Command got word from one of the observation posts that a plane was in a certain area. They could not identify the plane at the filter room, so a "yellow alert" was ordered.

On the yellow alert, only civilian defense, fire and police organizations are notified. On the next degree of alert, "blue," radio stations usually go off the air and civilian defense workers make ready to go into action. The "red" signal is the daytime "raid" and at night calls for a blackout. The "white" is the "all clear," day or night.

Although the yellow alert was flashed to the San Francisco police communications room at 11:20 a.m. according to Army records, the police did not go on the air with it or notify civilian defense officials, schools and the fire alarm office until 11:34 a.m., the time they claim they first got word.

Meantime, Oakland and other East Bay cities which received the alert two minutes after it was flashed to San Francisco, swung into action and fire and police departments as well as civilian defense bodies stood by.

Chief of Police Charles Dullea of San Francisco, told by his communications room that there was an alert in the East Bay, called the Fourth Interceptor Command to find out about it and was told, "You're on, too."

When the word was finally flashed to San Francisco agencies, the civilian defense officials and workers assembled at their appointed places, the fire alarm office sent out the 10-7 signal ("stand by") which calls for all off-shift firemen to report and schools were notified.

Two weeks earlier, in the first daytime alert, there had been a mixup at the schools and teachers sent home all youngsters regardless of the expressed wishes of the parents, most of whom wanted them to remain in school, figuring they would be safer there than on the street in case of a raid. To make it worse, it was raining and the children were not allowed to get their wraps before going home.

This time, however, everything went smoothly in the schools. Teachers were escorting some pupils home, others herded those remaining in school to the safest points in the buildings. About that time (11:41 a.m.) the plane was identified as friendly, the all clear was flashed by the filter room to the police communications room which in turn flashed it to the police, schools and fire alarm office.

In the fire alarm office, four lights, yellow, blue, red and white, making a "color board" are installed in a horizontal bank. When the yellow alert was flashed, the yellow light flashed on and word came over a special telephone.

When the all clear was given, the white light flashed on. Unfortunately, however, the fire alarm operator handling the color board and the air raid siren switches, was to the left of the bank. The white light being directly behind the red bulb from where he stood made it seem as if the red was on. Without hesitation, he pulled the switch for the city's sirens and 38 huge sirens in all parts of the city began their fluctuating howl, indicating a raid. It was at that moment that school children were being escorted home and it was at that moment that the board of education, having got the all clear from the police, was using its special phone system to give the all clear to the schools, ordering the teachers and pupils back to their classes.

The sirens howled for only a few seconds, then another operator caught the mistake. Immediately the switches were set to make the sirens give a sustained note—the all clear.

Citizens, hearing the sirens, thought their ears were deceiving them. They couldn't tell if it was the raid signal or the all clear. And, they asked themselves, how come the all clear is on if we didn't have an alarm first? Principals of schools, listening with one ear to the all clear from the board of education phone, heard the sirens wail with their other ear.

Phone calls deluged the board of education, the police, the fire department and the newspapers. The matter was finally straightened out, but Army, city, civilian defense officials immediately went into a huddle to find out what happened to the fourteen minutes that were lost between the filter room and the police communications room.

Result was that Police Chief Dullea announced: "I have nothing but this to say: the police were not in error."

The Army refused to quibble, saying laconically, "No comment."

Civilian Defense Director Jack Helms immediately launched an investigation of his own.

Meantime, Fire Chief Charles Brennan said that the matter of the color board in fire alarm headquarters would be adjusted so that such a failure would not again be possible. The fire alarm office is not under the jurisdiction of the fire department but the Department of Electricity.

Fire Hits Defense Plant

Fire destroyed the pottery building of the United Zinc Smelting Corporation at Moundsville, W. Va., on May 12.

The loss was estimated at at least $150,000. Origin of the fire was not known.

ONE HUNDRED TRUCKS BURN IN NEW YORK CITY GARAGE FIRE

Damaged estimated at $200,000; Auxiliaries Aid Fire Department

By Bill Herries

WHEN the first due fire apparatus arrived at the extra long one-story garage at West 55th Street in New York City on April 4, it was a roaring furnace. Within a few minutes it turned out to be the most spectacular garage fire that the city has had in a long time.

Battalion Chief Noonan of the Ninth Battalion, first to arrive on the scene, took no chances and at once ordered second and third alarms.

When second and third alarm companies reached the scene, the entire midtown section was covered with a heavy pall of black smoke.

The heat from the burning oil was very intense, and there were continuous explosions as the fire reached the gas tanks of the trucks. The walls caved in, with the roof collapsing a little later.

The flames spread quickly across the street, where they singed the side of Number 2 engine, also causing the fireman at the deck pipe of this truck to vacate his position.

Employes Try to Extinguish Fire

The blaze was discovered at 8:30 a.m. in the mechanics shop. The manager and several employees tried to extinguish the blaze with fire extingushers, but within a short time the flames spread so rapidly about them, they were forced to flee from the building. Had the fire started earlier in the day, it would have involved some three hundred cars. Most of these cars had been taken out of the garage some hours before.

The sounding of the second and third alarms quickly brought to the scene Assistant Chief John J. McCarthy and Fire Commissioner Patrick Walsh who arrived in time to hear the rumbling sounds that came from the explosions of four 600-gallon gas tanks.

After the flame and smoke had passed away, firemen carried out from the wreckage the band instruments belonging to a small group of Kay Kyser's musicians who had several engagements to play not far from New York City. They were stored in a bus which was also completely destroyed. The loss of the instruments and trunk full of scripts, music and some costumes was great as it is difficult to replace some of the instruments due to war conditions.

A group of auxiliary firemen from the Ninth Battalion were early on the job and greatly assisted the department in extinguishing the fire.

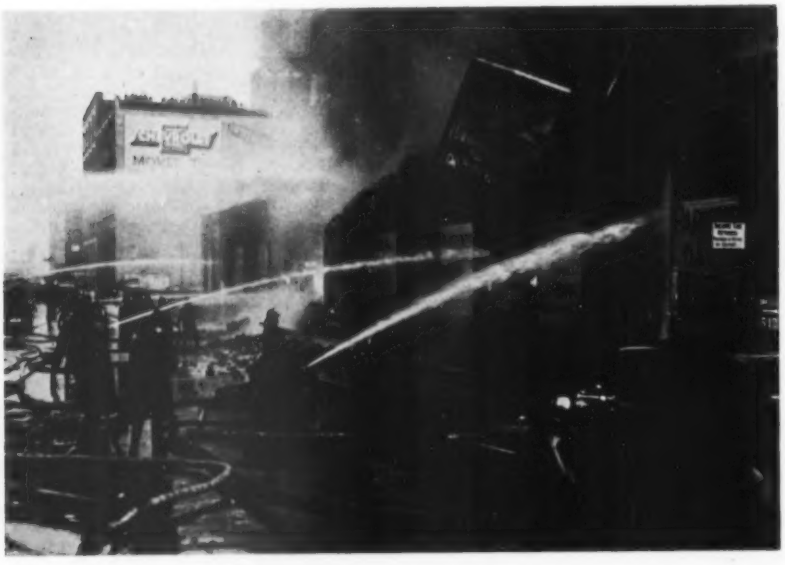
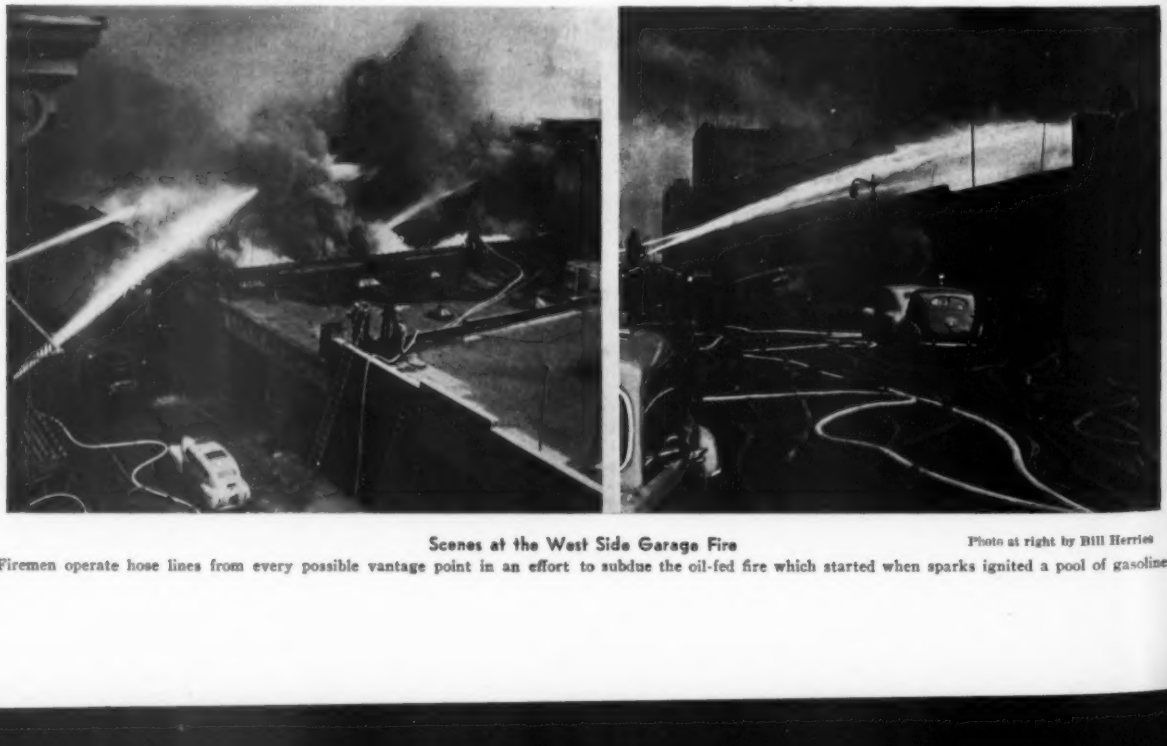


Photo by Bill Herries

General View of the Fire

The wall and roof have collapsed and all the fire fighters can do is pour water into the garage and wet down the adjoining property. At no time was the blazing garage safe for firemen to enter.



Scenes at the West Side Garage Fire Photo at right by Bill Herries

Firemen operate hose lines from every possible vantage point in an effort to subdue the oil-fed fire which started when sparks ignited a pool of gasoline.

Deferment of Firemen

Experiences of the Majority of Departments in Requesting Deferment for Skilled Men Found to be Unsatisfactory

IN the May issue of FIRE ENGINEERING were given the experiences of a group of Fire Chiefs in securing draft deferment for qualified men in their departments. In the following are included the reports of fire departments which were not so successful before their draft boards. Additional reviews of this latter group will also be incorporated in the July issue of this journal.

Fort Smith, Ark.
M. J. Brun, Chief

Four of our men have been called in the draft, one of which was temporarily deferred. We filled in Form 42. This was the only method used, as our local draft board has stated that they would not defer anyone below the grade of chauffeur.

We have a peculiar situation here. An army camp was built here recently. Its fire department is manned by civilian firemen. The Government pays more for firemen than the city does, so consequently a number of our experienced men have resigned and gone there to work. We have replaced them with younger men, but the draft board refuses to defer them.

San Angelo, Tex.
Tom Biggs, Chief

One of our men was called in the draft and deferred for six month. We went before the local board and asked that he be deferred until we could complete our training school as our department had lost nine men to the Goodfellow Flying School.

San Antonio, Tex.
C. A. Hart, Chief

Sixteen men were called, of which ten were deferred. In the case of three others, no attempt was made to obtain deferment, and they are now in the service.

We wrote a letter in each case to the chairman of the draft board, stating the period of service of the man, his capability and experience. We stressed the necessity of having a well-trained personnel to render maximum efficiency.

After the letter was sent, a personal call was made to explain the circumstances and conditions. In several cases additional deferment was granted, but no re-classification. Many draft board officials were under the impression that firemen could be quickly trained and that there was not much difficulty in obtaining new men.

We submitted an appeal in the form of a personal interview, explaining the need of keeping the organization in tip-top shape and the difficulty of replacing men because of the Civil Service regulations. Our age entrance is from twenty-one to thirty years, and eligibles in this group are not easily obtained.

Beverly, Mass.
John Cressy, Chief

We have not been able to secure deferment for any of our firemen. One man was called, given a 2-A classification by the local board, but changed to 1-A by the Board of Appeals.

We made application on the regular form to the local selective service board stating his qualifications as a fireman, the time required for the proper training of firemen and also the difficulty in securing men.

An appeal was submitted without any results. Since then several firemen have enlisted in the several branches of the United States service, rather than wait for the draft.

Phoenix, Ariz.
L. B. Barnum, Chief

We have not been able to secure deferment for any of the firemen called in the draft. Ten were placed in Class 1-A and joined the Army or the Navy.

I appeared before the board in person, but without results. An appeal was made to General Tuthill.

Stockton, Cal.
R. E. Thompson, Chief

We have had sixteen men called for the draft, but all have been deferred. Affidavits were filed, stating that the firemen were essential as the first line of civilian defense.

Newport News, Va.
R. E. Powers, Chief

Two of our men have been called but have been deferred for a period of six months. We filed a letter stating that due to the high rate of pay in defense work in this area, it was difficult to get men to stay in the department.

Oakmont, Penna.
Victor L. Nicoladse, Chief

We have not been able to secure deferment for firemen called in the draft.

As Chief of the Fire Department I filled out the regular deferment forms, but was unsuccessful.

No appeal was made as the local board stated definitely that no deferments had or would be granted for either firemen or policemen.

High Point, N. C.
E. K. Ingram, Chief

Draft Board No. 4 in our city allows deferment while Draft Board No. 5 does not.

Two in Draft Board No. 4 were deferred while the two in No. 5 were not. We requested deferment.

Norfolk, Va.
Edward J. Cannon, Chief

Temporary deferment has been secured in the case of one man. We filed "Employer's Request for Deferment" of man engaged in necessary duties. We also wrote the City Manager asking that something be done to protect our manpower.

This man has been ordered to report for physical examination, after the draft board had deferred him temporarily.

Dearborn, Mich.
R. E. Mottesheard, Chief

Single men with no dependents were placed in 2-B. Two of these men have been reclassified to 1-A and ordered to report for service.

No appeals have been made.

Durham, N. C.
Frank W. Bennett, Chief

None of our firemen have been deferred. Three are already in the service and seven or eight are waiting to be called.

I made a complaint to the Corp Area office in Atlanta, Ga., with no results. The Durham Fire Department is going to be severely handicapped if some arrangement isn't made to secure deferment. It is practically impossible to get suitable men who wouldn't be in the draft for this type work.

Quincy, Ill.
Frank Hummelt, Chief

We have been able to secure deferment for one man up to date. This deferment is for six months. The man is a pump operator.

I appealed to the board in person for my key men such as assistant chiefs and pump operators, promising to have another man trained for their jobs.

San Francisco, Calif.
Charles J. Brennan, Chief

We were able to secure deferment for firemen in some instances, depending on the draft board. About sixty men were called, of which possibly forty were deferred.

Form 42-A was signed by me as Chief Engineer of the San Francisco Fire Department.

We made no appeal in cases where the men did not receive deferment.

Yakima, Wash.
Ray H. Hare, Chief

All draft age members of the Fire Department have been deferred. The local boards recognize the need of trained firemen.

Huntington Park, Calif.
John M. Slocum, Chief

Two of our men were deferred. We wrote the draft board, explaining that the men were city firemen and were needed in the department in case of an emergency.

Knoxville, Tenn.
C. M. Johnson, Chief

Seven men have been called in the draft, and none of them have been deferred. In two cases we appealed, but with no satisfactory results.

Amarillo, Tex.
G. B. Cooper, Chief

We have secured deferment for one fireman by filling out the necessary forms. If he were called in the draft, we would submit no appeal.

Rochester, N. Y.
John A. Slattery, Chief

We have been able to secure temporary deferment of six months for about 100 firemen. Seven have been called into service.

We filled out the following form:

"Claim for Deferred Classification

"By Person Other than Registrant

"I hereby claim deferred classification for ..... City Fireman, Order No. ....., based on the following facts:

"1. The Rochester Fire Bureau is engaged in work vital to the national defense. This work includes the safeguarding of key industries through proper fire protection, and the extinguishing of all fires with the least possible delay, to insure against any major interruption of the defense program in this city. The Fire Bureau is also engaged in the investigation of all possible sabotage, through the outbreak of fires, The Fire Bureau is of primary importance in maintaining public safety.

"2. Being a registrant, naturally, he is the youngest man in his company, to whom is assigned the most active work as a fireman, that his company is called upon to perform. He has been especially trained at the Fire Training School in modern methods of firefighting, and of the use of all tools and equipment employed in this work.

"3. There are 386 firemen in the bureau with the rank of private.

"4. Of the 386 privates in the bureau, 111 are registrants.

"5. No replacements are available. His induction into the miltary service would leave a vacancy in the Fire Bureau, as he has a Civil Service status and his position must be held open until his return from military duty.

"6. There is no one, outside of the Fire Bureau, in training for this work.

"My relationship or association with the named registrant is, Chief of the Fire Bureau. I, John A. Slattery, do solemnly swear (or affirm) that the above facts are true.

.....
"Chief of Fire Bureau
"Rochester, N. Y.

"Subscribed and sworn to before me this ..... day of ..... 1942.

.....
"Notary Public, Monroe County

"(D.S.S. Form 42)

"Attach to questionnaire"

Cambridge, Mass.
Herman E. Gutheim, Chief

Six of our men have been called and six deferred for six months. I appeared before the draft board and explained the necessity of having trained firemen deferred.

Detroit, Mich.
Alex Thompson, Chief

Our men have been only temporarily deferred. At the present time there are twenty-three men from the fire fighting division who are in the armed forces. Some of these are reserve officers, some draftees and others who enlisted.

Application for deferment was made on form provided by the local draft board for occupational deferment.

Our appeal, however, was denied.

Buffalo, N. Y.
John J. Tubridy, Commissioner

We have fifteen men already in the service. Several other men have temporary deferments.

We filled in the regular forms supplied by the selective service boards, together with letters calling attention to the necessity of having a properly trained and efficient fire fighting force.

Several appeals were presented, but no definite deferments were obtained.

Jamestown, N. Y.
Rudolph H. Swanson, Chief

Two men were called and both deferred. I appeared before the draft board in their behalf, and the men were deferred.

Columbus, Ga.
W. B. Miller, Sr., Chief

On two occasions we have been able to get men deferred. Two men were called before war was declared and deferred two or more months. One man called after war was declared was not.

I filled out the regular employer's forms, answering questions on why such employee should be deferred.

I believe this is the most important problem for fire departments today. It is impossible to get experienced men to fill the places of those taken in the draft.

Omaha, Neb.
A. W. Olsen, Chief

To date, fifteen men have been called. In several cases we have been able to get men reclassified from 1-A to 1-B or 2-A, but have not ben able to secure deferment once they are called. Personal letters have been written to the local draft boards in each case.

San Diego, Calif.
J. E. Parrish, Chief

Five men were drafted from our department and none were deferred. I appeared before the various draft boards and also wrote letters. Both of these methods proved unsuccessful.

Berkeley, Calif.
William Meinheit, Chief

None of our men has been drafted from this department to date. Most deferments were made voluntarily on the part of the local board. We have asked for and received eight deferments. These are for a period of six months.

We wrote to the local board or filled out form presenting our case and asking for consideration, basing our plea on the fact that the fire service should be strengthened rather than weakened by inducting trained firemen into the service.

Oakland, Calif.
W. G. Lutkey, Chief

Eight of our men have been drafted or have enlisted rather than be drafted. Eight men have been deferred for a period of six months. We requested deferment on draft board blanks for that purpose.

Baltimore, Md.
Howard Travers, Chief

Out of nineteen men called, we have been able to secure deferment for only two men. We used the form provided by the local draft boards. We submitted an appeal in two instances, but with no results.

Orlando, Fla.
M. G. Bennett, Chief

We were able to secure temporary deferments for two or our men. I personally appeared before the board in an effort to have them deferred.

Personal contact was the most effective, but the deferment was only temporary for after six months one man was called and enlisted to prevent being drafted. The other was rejected.

Texarkana, Tex.
W. J. Springer, Chief, Defense Plant

We have been able to secure deferments for four out of ten men called. Letters were written to the draft boards outlining the duties of firemen.

New London, Conn.
Thomas H. Shipman, Chief

Three men have been called; none deferred.

I requested deferment for one, my Chief Operator and dispatcher who was indispensable to me. My letter was not even answered. This man had charge of dispatching apparatus to fires, air raid alarms and many other duties. It will take me two to three years to replace. This action has definitely damaged the proper functioning of my department.

Harrisburg, Penna.
Earl Swartz, Chief

We have had only two men called so far. The first one was killed the day before his induction. The Director of Public Safety asked for deferment for the second one, but it was denied and he was inducted on April 23.

The Director filled out the proper papers furnished by the local draft board stating that the man was needed very badly in our fire department, but deferment was denied.

The man involved made a verbal protest after he learned that firemen in nearby departments had been deferred, but it was in vain.

Amsterdam, N. Y.
Matthew J. Kavanagh, Chief

We have not been able to secure deferment for firemen called in the draft. We tried to get a hearing before the draft board, but were unable to do so.

We didn't go any further. We have

one fireman somewhere in the Army now with two or three more to go in the next draft.

Syracuse, N. Y.
Philip N. Eckel, Chief

Five men have been called as selectees and entered the service. Five others were called as either militia or reservists. None were deferred.

In all instances, we asked for deferment on the basis of occupation, stressing the fact that the department is already undermanned. Appeals were filed with the local selective service boards.

We did not appeal the local board's decisions because in all instances they acted upon advice from State and Federal agencies.

Sacramento, Calif.
Timothy Healy, Chief
Fire Prevention Bureau

Three men have been called and inducted into the service. Several have been called and deferred due to marital status or other dependents.

Chief Mulligan sent me as his personal representative to present a written request for deferment on the basis of the vital need for trained firemen in the event of an incendiary raid.

A written form was filled out stating the total number of hours invested in each man from the standpoint of training, the total experience of each man, his seniority and value to the department, etc.

The board did not see fit to defer these men from the standpoint of their value to the department. They would only defer men through the normal board deferment reasons.

Appeals were submitted, but disregarded by the board.

Marion, Ind.
Burr Hamilton, Chief

One man has been called to date We apeared before the local draft requesting deferment because of importance to the department, but the local board refused deferment. This man also had a widowed mother and a brother and sister to support.

No appeal was submitted as this man did not wish it. He did not want people to feel he was a slacker in his American citizenship.

Niagara Falls, N. Y.
James H. O'Neill, Chief

Three men were called and none deferred. In an answer to an appeal for deferment of the first two members to be called, the draft board gave as their reason that the men had not been members of the Bureau of Fire long enough (three months) to be really experienced firemen.

I submitted an appeal to have the third man deferred, but with no results. This man had over a years' service. The appeal board claimed that there was no provision made to defer men in the fire or police service.

Medford, Mass.
Thomas A. Qualey, Chief

One man was drafted from this department. I contacted some members of the local draft board, but without results.

Rochester, Minn.
Edward H. Siller, Chief

We have not been able to secure deferment for firemen called in the draft. Our board says that they have orders to the effect that they cannot defer police or firemen.

Yonkers, N. Y.
C. E. Ginther, Chief

Five men have been called, but none deferred. A request was made to all of the draft boards in the city asking them to defer firemen. We have not been successful to date in having this done.

Jersey City, N. J.
Frank J. Ertle, Chief

Eight men have been drafted from our department. Very few of the men have been deferred because of their employment in the fire department.

We filed forms 42 and 42A, but without results. We submitted an appeal, but it was rejected also.

Richmond, Va.
A. F. Taylor, Chief

Ten men have been called; none deferred . We wrote letters to the local draft boards, but this method was not effective.

We attempted to impress our local boards with the fact that as our city has been declared a military and defense area by the United States Government, the men called with five years or more service should be deferred, as the fire department is the first line of defense.

I believe that fire departments should be protected from the policy of the draft board of taking men that are experienced in fire fighting and fire protection.

Fresno, Calif.
L. A. Moore, Chief

We have not been able to secure deferment for those of our men called in the draft. We appeared before the local draft boards and also before Lieutenant General De Witt. We were told there is no deferment as to class.

Tucson, Ariz.
Henry L. Hillis, Chief

The only men deferred are those with dependents. We have one man in 1-A who is waiting to be called. Three men are in 3-A.

Elkhart, Ind.
E. L. Clark, Chief

One of our men was called into service. The Mayor wrote to the regional office asking that he be deferred. The reply was that firemen were not being deferred.

I feel that fire departments should be allowed only a percentage of deferments. I do not favor total exemption of all firemen.

Charleston, W. Va.
J. L. McLane, Chief

Two of our men have been drafted. The Mayor has promised that he would ask for deferment of firemen called in the draft. I have had a number of men leave the department because they can get higher salaries in defense plants. The defense plants are installing fire protection and want experienced men. They will accept only the best.

Auxiliary Fireman Ben Ellis

The above photograph of Mr. Ben Ellis, well known New England fire buff, was taken in the vicinity of a large fire recently. Mr. Ellis was a member of the New York Auxiliary Fire Force of World War No. 1.

Chicopee, Mass.
Albert Bunyan, Chief

I tried to get deferment for a reserve fireman who had been on continuous duty for over six months. This was not allowed. I have not had occasion to apply for deferment for a permanent fireman.

Lynchburg, Va.
M. K. Evans, Chief

Four men have been called and I was unable to obtain deferments for any of these men. I went to the coordinator of the local civilian defense unit and to the head of the local draft board. Neither method was effective.

Youngstown, Ohio
Michael J. Melillo, Chief

Three men were called and none deferred. When firemen were classified, in 1-A. reconsideration was asked of the local draft board and a form issued by the board filled out showing that the men in question were considered necessary. Upon reconsideration deferment was denied. No further action was taken.

Irvington, N. J.
James Thompson, Chief

Two men have been called to date. I applied to the local draft board by letter and then had the men apply in person at a county hearing.

(*Continued on page 373*)

Much Fire Apparatus Needed for Defense Preparation

Cities Throughout Country Report Urgent Need for More Apparatus

IN the May issue of FIRE ENGINEERING was published a tabulation of needs of fire departments in cities of 5,000 to 10,000 population, located throughout the country. In the tabulation which follows are given additional data for cities of this population group.

The same widespread need for new fire apparatus is indicated in this group as was reported by the larger cities; and the same difficulty in securing it, indicated.

(A) Emergency apparatus and equipment purchased in 1940. (B) Additional apparatus and equipment needed. (C) Apparatus and equipment to be purchased during current year.

5,000 to 10,000 population.

Orange, Mass.
(A) 500 ft. 2½-in. hose; addl. 500 ft. 2½-in. hose on order; 12 spray and fog nozzles for extinguishers
(B) 3 500-gal. trailer pumps; 3,000 ft. 2½-in. hose; 3,000 ft. 1½-in. hose; coats; boots; gas masks
(C) 1 trailer pump; 1 portable pump; 1,000 ft. line hose; 2 fog applicator nozzles

Palmer, Mass.
(A) 1½-ton truck; fog nozzles
(B) 2 trailer pumps with necessary hose and equip.
(C) None

Rockland, Mass.
(A) 750-gal. triple comb. truck fully equipped; 2,000 ft. 2½-in. hose; 1,000 ft. 1½-in; 1,500 ft. 1-in. hose; 1 8-in. hose
(B) 2 small trucks with pump; 1 65-ft. aerial ladder truck
(C) None

Seekonk, Mass.
(A) Pump cans
(B) Chassis for forest fire unit
(C) Chassis

Somerset, Mass.
(a) Hose
(B) 1 500-gal. trailer pumper; 1,000 ft. 2½-in. hose; 500 ft. 1½-in. hose
(C) Not known at this time

Spencer, Mass.
(A) None
(B) 750-gal. pumper with hose
(C) Not reported

Uxbridge, Mass.
(A) 1,000 ft. 2½-in. hose; 6,000 ft. 1½-in. hose
(B) 1 500-gal. pumper; 500 ft. 2½-in. fire hose
(C) 1 500-gal. pumper; 500 ft. hose

Walpole, Mass.
(A) 1 350-gal. trailer pump
(B) 5,000 ft. 2½-in. hose; 3,000 ft. 1½-in. hose; 1 750-gal. pumper or 2 500-gal. trailer pumps; 1 65-ft. aerial truck; 1 unit for forest fire work
(C) 3,000 ft. 2½-in. hose; 1 portable forest fire pump

Westboro, Mass.
(A) 1 500-gal. pumper; 5,000 ft. 2½-in. hose
(B) 1 500-gal. pump
(C) None

Berkley, Mich.
(A) None
(B) Not known
(C) Not reported

Coldwater, Mich.
(A) 2½-in. hose; booster line hose; Resuscitator
(B) Truck should be replaced
(C) Truck

Dowagiac, Mich.
(A) 500 ft. 2½-in. hose; 5-gal. pump can extinguishers
(B) Trailer pump; pump can extinguishers; 2½-in. hose; fog nozzle for booster hose; fog nozzle for 2½-in. hose
(C) 500 ft. 2½-in. hose

Gladstone, Mich.
(A) 400 ft. 2½-in. hose
(B) 500-gal. pumper
(C) None

Grosse Pointe, Mich.
(A) None
(B) 1,000 ft. 2½-in. hose; 15 gas masks; 2 fog nozzles; 1 ladder and service truck comb.
(C) Not known

Hancock, Mich.
(A) 500 ft. 2½-in. hose; first aid kit
(B) Hose
(C) Hose

Hastings, Mich.
(A) 500 ft. hose
(B) Pumper and booster tank
(C) Not reported

Lapeer, Mich.
(A) 500-gal. pumper
(B) 2½-in. hose; 12 helmets; 6 coats; 3 salvage covers
(C) Not reported

Laurium, Mich.
(A) 700 ft. hose, 2 nozzles; 150-ft. chemical hose; smoke and gas masks
(B) None
(C) None

Manistique, Mich.
(A) None
(B) 1 pumper; more small equipment
(C) None

Negaunee, Mich.
(A) 1,000 ft. fire hose
(B) Fire truck
(C) Fire truck

Petoskey, Mich.
(A) None
(B) Ladder truck
(C) Not reported

Roseville, Mich.
(A) 1 fog nozzle; 200 ft. 2½-in. hose
(B) 500-gal. pump; hose wagon; 2 trailer pumps; floodlight equip.
(C) Trailer hose wagon to be built by dept.; possibly pump

St. Joseph, Mich.
(A) 500 ft. 2½-in. hose
(B) 1 small pumper; 1,000 ft. 2½-in. hose; hand pumps; helmets
(C) Possibly all but the pumper

Sturgis, Mich.
(A) 1 65-ft. aerial ladder truck (quint.); 1,000 ft. 2½-in. hose; extra nozzles; smoke masks
(b) 1,000 ft. 2½-in. hose; helmets; foam generator and powder
(C) Hose and helmets

Chisholm, Minn.
(A) Chief's car
(B) 1,000 ft. hose; 2 asbestos suits; 1 a.c. gas-operated generator; 1 pumper
(C) Not known at this time

Columbia Heights, Minn.
(A) 750-gal. pumper; 40-ft. ladder; 500 ft. 2½-in. hose
(B) Another pumper; ladders; 1,500 ft. hose
(C) Probably some hose

Crookston, Minn.
(A) None
(B) Contemplating putting a 500-gal. water tank on 4-wheel trailer in case of water shortage
(C) 150 ft. 1-in. booster line fire hose; 500 ft. 2½-in. hose; smoke and gas masks

Eveleth, Minn.
(A) 1 750-gal. pumper; 1 28-ft. exten. ladder; 1 14-ft. roof ladder; 1-hr. oxygen breathing apparatus
(B) 1 city service truck; 1 chief's car; 1,500 ft. fire hose; 1-hr. oxygen breathing apparatus; 4 stirrup pumps; 1 trailer pump
(C) Chief's car and fire hose

International Falls, Minn.
(A) 1,000 ft. 2½-in. hose
(B) 1 55-ft. aerial ladder truck; 1,000 ft. 2½-in. hose
(C) 1,000 ft. 2½-in. hose

Moorhead, Minn.
(A) 1,000 ft. 2½-in. d.j. hose; 350 ft. 1½-in. d.j. hose; 14 tarpaulins; tires and tubes for fire dept. trucks; 5 new batteries; 12 helmets
(B) None
(C) None

New Ulm, Minn.
(A) None
(B) 10 trailer pumps; hand pumps; ambulance
(C) None

Corinth, Miss.
(A) 150 ft. 1½-in. hose; 600 ft. 2½-in. hose on order
(B) None
(C) None

Marshall, Mo.
(a) 1 fog nozzle for 2½-in. line; fog nozzle for 1½-in. line; fog nozzle for booster tank line
(B) Portable light; life net; stirrup pumps; all-purpose gas masks
(C) Gas mask; stirrup pump

Mexico, Mo.
(A) 500 ft. 2½-in hose
(B) Fire truck; 1,000 ft. 2½-in. hose
(C) Fire truck

Bozeman, Mont.
(A) None
(B) 1 750-gal. pumper; 2,000 ft. d.j. 2½-in. hose
(C) All

Havre, Mont.
(A) 800 ft. hose; 3 fog nozzles
(B) 1 750-gal. pumper with ladders and supplementary equip.
(C) Hose and nozzles

Kalispell, Mont.
(A) Booster pump installed on rig; 250 ft. 2½-in. hose; sprinkling wagon converted into a fire truck
(B) 1 750-gal. pumper; 500 ft. 2½-in. hose; 300 ft. 1½-in. hose with fog nozzles; 1 siamese
(C) Possibly the hose and nozzles

Lewistown, Mont.
(A) 1 quint. comb. truck; 1,500 ft. 2½-d.j. hose; 400 ft. 1½-in. hose on order
(B) 1,000 ft. 2½-in. hose; fire alarm boxes and replacements; 6 smoke masks; helmets and firemen's bunkers
(C) All if possible

Livingston, Mont.
(A) 1,800 ft. 2½-in. hose; 600 ft. 1½-in. hose; 2 hose trailers; 8 nozzles; 2 gate valves; 4 gas masks
(B) Hose; gas masks; 1 750-gal. pumper
(C) All of the above

Miles City, Mont.
(A) Hose; 4 gas masks
(B) 1 750-gal. pumper; 150-gal. water tank and booster pump; 1 45-ft. aluminum ladder; 2 40-ft. aluminum ladders
(C) None

Alliance, Neb.
(A) 6 10-lb. CO_2 extinguishers; 2 15-lb. CO_2 extinguishers; 500 ft. 2½-in. hose
(B) 600-gal. comb. pumper and ladder truck; emer. wagon
(C) None

Columbus, Neb.
(A) 500 ft. 2½-in. hose; 200 ft. booster line; 1 fog nozzle ordered but not received; 1 first aid truck fully equipped on order
(B) 500 ft. 2½-in. hose; 200 ft. 1½-in. hose with nozzle and siamese couplings
(C) Not known

Fairbury, Neb.
(a) 1,000 ft. 2½-in. hose; 2 all-service gas masks
(B) 1 quad pump and ladder comb.; 1 hose wagon; 1 squad car or ambulance
(C) None

Falls City, Neb.
(A) 500-gal. pumper and 500 ft. hose
(B) Not reported
(C) Not reported

Kearney, Neb.
(A) 1 500-gal. pumper for rural service; 1 emer. or disaster unit equipped with 1,500-watt generator
(B) 1 750-gal. quad. pumper
(C) None

McCook, Neb.
(A) None
(B) Fire station; 4 paid men; 1 truck
(C) None

York, Neb.
(A) 2 fog nozzles; portable floodlight system
(B) Fog nozzles for ¾-in. booster line
(C) Fog nozzle

Franklin, N. H.
(A) None
(B) Forest fire pump with 2,000 ft. 1½-in. hose; 2 trailer pumps with suction and adapters; 150 uniforms for aux. firemen; 2,000 ft. 2½-in. hose; fire alarm equip.; 1 gasoline motor generator; 2 6-in. turtle type gongs; air horn alarm system; fire alarm boxes; 100 knapsack pumps.
(C) 500 ft. 2½-in. hose; 12 prs. rubber boots; 12 rubber coats; 12 prs. mittens; 12 aluminum helmets; 1 salvage cover

Caldwell, N. J.
(A) 2 trucks; fire alarm in lower end of town; 4 electric horns; 2 2½-in. spray nozzles; brooms
(B) Not reported
(C) 500 ft. 2½-in. hose; 400 ft. 1½-in. hose; 4 spray nozzles; coats; boots; gas masks

Glen Ridge, N. J.
(A) 1,600 ft. 2½-in. hose; 30 rubber coats; 30 rubber boots; 3 hydrant gates; 2 1-ton trucks to carry hose
(B) 3 750-gal. pumping engines; 50 helmets
(C) Helmets

Hammonton, N. J.
(A) 1 jr. aerial truck with 200-gal. booster tank and pump; 1 550-gal. pumper and 500-gal. tank; 500 ft. 2½-in. hose; 500 ft. 1½-in. hose; portable floodlight system
(B) 1 750-gal. pumper with 500-gal. tank
(C) Pumper

Little Ferry, N. J.
(A) 300-gal. pumper equipped with 500-gal. booster tank
(B) 1,500 ft. 2½-in. hose; 6 all-purpose gas masks; portable floodlight unit
(C) All

Mt. Holly, N. J.
(A) 1 750-gal. pumper with 300-gal. booster tank; 500 ft. 1½-in. hose; 500 ft. 2½-in. hose
(B) 200 stirrup pumps; 4,000 ft. 2½-in. hose; 2,000 ft. 1½-in. hose
(C) Not known

Neptune City, N. J.
(A) None
(B) Not reported
(C) Not known

Newton, N. J.
(A) 2½-in. hose; CO_2 pressure tanks; knapsack pumps; 1½-in. leader hose; nozzles; helmets
(B) More knapsack pumps; fog nozzle; 2½-in. hose; rubber boots and coats; mittens
(C) Hope to get as much of above material as possible

Palisades Park, N. J.
(A) None
(B) 1 1,000-gal. pumper; 1 75-ft. aerial ladder truck
(C) 1 1,000-gal. pumper

Somerville, N. J.
(A) 1 1,000-gal. pumper; have arrangements to requisition two portable pumping engines, complete spray truck, water tanker from Street Dept.; 4 units of fire reserves totalling 130 men
(B) More hose and more pumpers
(C) Not known

Vineland, N. J.
(A) 500-gal. pumper with 900-gal. booster tank
(B) Tank wagons for carrying water
(C) None

Wildwood, N. J.
(A) 85-ft. rescue truck
(B) 2 trailer pumps; 500 stirrup pumps; 3,000 ft. 1½-in. hose
(C) None

Raton, N. M.
(A) 1 24-ft. ext. ladder; 2 all-service gas masks; new batteries in both trucks
(B) 1,000 ft. 2½-in. hose; foam generator
(C) Some of the hose; foam generator

Albion, N. Y.
(A) 1,500 ft. 2½-in. hose; 300 ft. 1½-in. hose; 4 nozzles; 2 gas masks; 4 knapsack pumps; 4 gate valves; 11 coats; 9 helmets.
(B) None
(C) None

East Rochester, N. Y.
(A) 300 ft. 1½-in. hose; 12 pairs boots; 12 coats; 12 helmets; 1 10-ft. length of 6-in. soft suction hose; 2 knapsack pumps; 1 2½-in. fog nozzle.
(b) Fog nozzles for booster lines; 300 ft. 1½-in. hose; 2 knapsack pumps
(C) Believe all will be purchased during the current year

Hastings-on-Hudson, N. Y.
(A) None
(b) 750-gal. centrifugal pumper
(C) 750 gal. centrifugal pumper

Hoosick Falls, N. Y.
(A) Hose
(B) Small apparatus.. ½ doz. gas masks; small hand pump
(C) Not known at this time

Malone, N. Y.
(A) None
(B) Pumper and ladder truck
(C) Not known at this time

Mt. Kisco, N. Y.
(A) 1 65-ft. aerial ladder; 1,000 ft. 2½-in. hose
(B) Completely equipped emer. car or squad wagon; 1 fire house; aux. fire signal horns; portable floodlight system
(C) Emer. car; fire house to be built by 1 company; aux. signal horns; floodlight equip. depends on funds available

Norwich, N. Y.
(A) 450 ft. 2½-in. hose
(B) 1 triple comb. pumper; 1 75-ft. aerial ladder truck; 2,000 ft. 2½-in. hose; 1 lighting system
(C) 900 ft. 2½-in. hose on order

Pelham Manor, N. Y.
(A) 250-ft. 1½-in. hose; chief's car equipped with 2-way radio
(B) 5 400- to 500-gal. trailer pumps; 5,000 ft. 1½-in. hose; 5,000 ft. 2½-in. hose; 1 emer. truck or rescue wagon fully equipped; 1 75-ft. aerial truck
(C) Emergency truck

Scotia, N. Y.
(A) 55 knapsack pumps; 50 long-handled shovels; 50 axes; 10 wool blankets; 24 mittens; 75 lights; 50 flashlights; 600 ft. rope; 5 all-service smoke and gas masks; 3 presto lights
(B) 3 portable gasoline pumps; 1 floodlight; 600 ft. 1-in. hose; 3 2-wheel trailer units
(C) All

Waverly, N. Y.
(A) 1 portable lighting plant
(B) Not reported
(C) 500 ft. hose

Wellsville, N. Y.
(A) 500 ft. 2½-in. hose; 1 foam generator; 5 knapsack pumps with spray nozzles
(B) 1,000 ft. 2½-in. hose; 1,000 ft. 1½-in. hose; 6 knapsack pumps; 3 all-service gas masks; 12 helmets; 12 rubber coats
(C) Hose; coats

Henderson, N. C.
(A) 1,500 ft. 2½-in. hose; 1 fog and 2 straight nozzles; 2 knapsack pumpers; 1 750-gal. quad pumper
(B) 1 750-gal. pumper
(C) Pumper

Devils Lake, N. D.
(A) Hose; nozzles
(B) None
(C) None

Jamestown, N. D.
(A) 2 new trucks; 1 truck overhauled; 1,200 ft. 2½-in. hose; deluge set; nozzles
(B) 50-ft. ladder
(C) The ladder if possible to obtain

Bucyrus, Ohio
(A) None
(B) 1 750-gal. pumper with booster tank
(C) Hose

Circleville, Ohio
(A) Small tools; stirrup pump; floodlights
(B) More hose; trailer pumps
(C) Hose

Defiance, Ohio
(A) None
(B) 3 pumpers; 3,000 ft. 2½-in. hose; 1 ambulance
(C) 1 pumper; 500 ft. 2½-in. hose

Delaware, Ohio
(A) 250 ft. 2½-in. hose; 3 2½-in. nozzles
(B) 2½-in. hose; knapsack pumps; 1½-in. hose
(C) 2½-in. hose

Kenton, Ohio
(A) Addl. men
(B) 1 500-gal. pumper; 1 65-ft. aerial truck
(C) None

Logan, Ohio
(A) 1 500-gal. pump to be installed on truck; 2 5-gal. knapsack pumps; 12 foam extinguisher fillers; 2 gal. carbon tetrachloride
(B) 500 ft. 2½-in. hose; 500 ft. 1½-in. hose; 2 nozzles for 1½-in. hose; 200 ft. 1-in. booster hose, fog nozzle with adapter for 1½-in. hose and booster hose; 10 stirrup pumps.
(C) Nearly all of the above will be bought. Four aux. stations in outlying districts will be set up

Rossford, Ohio
(A) New boots and coats
(B) Inhalator
(C) Inhalator; 2½-in. hose.

St. Bernard, Ohio
(A) 1 triple comb. pumper; 1,000 ft. 2½-in. hose; 200 ft. 1½-in. hose; 200 ft. 1-in. booster line; extinguishers; tractor for service truck.
(B) 1 or 2 deluge guns
(C) 1 deluge gun

Sidney, Ohio
(A) 900 ft. 2½-in. hose
(B) 1 pumper; siren; fog nozzles; foam powder; hose
(C) Not known.

Washington Court House, Ohio
(A) 850 ft. 2½-in. d.j. fire hose
(B) 1 quint. comb. pumper and ladder truck; 2 750-gal. triple comb. pumpers; 2 500-gal. trailer pumps; chief's car
(C) None

Wilmington, Ohio
(A) Hose
(B) Hose; hand pumps
(C) Hand pumps; spray nozzles; small equip.

Altus, Okla.
(A) Portable light plant being built
(B) 750-gal. quint. comb; 2 or 3 trailer or portable pumps
(C) Not known

Clinton, Okla.
(A) None
(B) 1 500-gal. pumper; 1,000 ft hose
(C) 1 500-gal. pumper

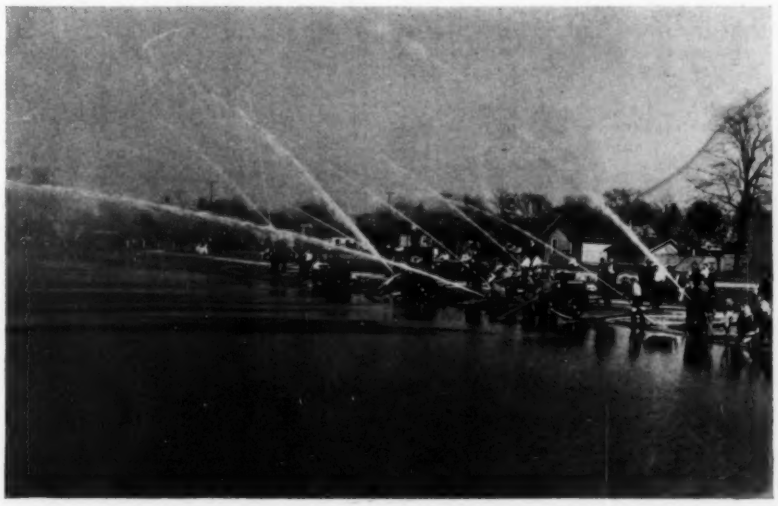
Hugo, Okla.
(A) None
(B) 1 500-gal. pumper; 750-gal. quad comb. truck
(C) Possibly the 750-gal. quad

Picher, Okla.
(A) 500 ft. 2½-in. hose; 200 ft. 1½-in. hose; 400 ft. 1-in. hose
(B) 3 pumpers; 3 portable pumpers and hose; 5,000 ft. of assorted sizes of hose
(C) None

Marshfield, Oregon
(A) 1 500-gal. pumper with 300-gal. booster tank
(B) 1 comb. pumper and ladder truck; 2 small trailer pumps; 1 small fire boat
(C) None

Pendleton, Ore.
(A) None

(Continued on page 367)



Trailer Pump Operation for Auxiliary Firemen

Auxiliary firemen of Linden, N. J., under the leadership of Chief Frank T. Miller of the Linden Fire Department are learning the fundamentals of trailer pump operation. Three one and one-quarter inch and six one-half inch tips are being used.

David J. Price President of N. F. P. A.

The National Fire Protection at its annual convention at Atlantic City, N. J., on May 14, elected Dr. David J. Price as President for the ensuing year.

Dr. Price, who is at present Principal Chemical Engineer, Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Washington, D. C., recently completed thirty years' consecutive Federal service. The numerous bulletins issued by the U. S. Department of Agriculture of which he is the author are well known to the fire service.

Dr. David J. Price

During World War I he directed an emergency dust explosion and fire prevention campaign for the United States Grain Corporation in cooperation with Julius H. Barnes, President, and Herbert Hoover, United States Food Administrator. That campaign was directly responsible for the prevention of losses of government-owned grain and foodstuffs in storage and shipment.

In November, 1927, he was assigned by Secretary of Agriculture James M. Jardine, at the request of President Coolidge, to direct an investigation of causes of heating hay and barn fires in the flooded regions of Northern Vermont. The flood waters reached the haymows of hundreds of barns in the Winooski, Lamoille, and Mississquo River valleys. The investigation developed the need for scientific research on the problem of "spontaneous heating" of farm products.

In 1937 he was assigned by the Secretary of Agriculture, H. A. Wallace, at the request of Governor James V. Allred, to assist the Military Court in an investigation of the explosion at the Consolidated School, New London, Tex., on March 18, 1937, which resulted in the loss of 293 lives and extensive property damaged.

Dr. Price has developed methods for control and prevention of dust explosions and fires in grain-threshing machines in the Pacific Northwest and of fires in cotton gins of the Southwestern States.

He has directed and supervised for the U. S. Department of Agriculture investigations of explosions and fires in industrial plants and the design and development of mechanical devices, apparatus, and equipment for the prevention and control of dust explosions in flour mills, starch factories, grain elevators, grain-handling plants and industrial plants processing and storing agricultural products.

Emergency Water Supply for Columbus

Fire Chief E. P. Welch reports that the Columbus, Ohio, Fire Department is developing an emergency water supply in the event the water works pumps or water mains are damaged by bombs or sabotage.

A survey is being made by Assistant Chief James Garrish to determine the approximate amount of water available.

The plan includes the use of private reservoirs, lakes and cisterns. Where the water supply cannot be reached by the fire department pumps, roadways are being built at the owners' expense to facilitate the movement of fire apparatus.

An important and interesting development in the survey is the amount of water that can be furnished under good pressure by private wells. These wells are being used in connection with air conditioning systems in large department stores and theatres, or in some cases, as a source of water supply for manufacturing plants.

The wells can be used by the fire department by installing a standard two and a half inch male connection near the pump outlet. Short lines can be laid from this outlet, or the water can be run through the fire department pumper if greater pressure is needed.

Some of the private pumps deliver water at pressures ranging from fifty to seventy pounds. On tests these pumps have thrown a good stream through 150 feet of two and a half inch hose using a seven eighth inch tip.

Other plans include the use of gasoline and oil transport trucks, filled with water and equipped with the auxiliary pumps furnished by the Government.

LIEUTENANT JOHN JORDAN.

Columbus Firemen Test Water Supply at Local Factories

Upper: Standard 2½-inch fire department connection installed on private well at David Davies Packing Co. Two pumps on the well are able to supply 500 gallons per minute. Lower: Four streams are being supplied by two private wells.

Training Manual for Auxiliary Firemen

Just issued by the National Fire Protection Association of Boston is a new book, "Training Manual for Auxiliary Firemen," by Horatio Bond, W. Fred Heisler and R. J. Douglas (416 pages, 225 illustrations, $1.50).

In presenting the text, the National Fire Protection Association offers the training evolutions and maneuvers described in the Manual as practices largely proved and accepted. This is because the text follows closely an outline prepared last winter entitled "A Guide for Training Auxiliary Firemen" by the Firemen's Training Committee of the Association and which is already being used as the official pattern for training auxiliary firemen in Chicago and other cities.

The manual is presented in four parts: civilian defense courses (including use of gas masks and handling incendiary bombs), primary, secondary and supplementary firemanship courses. Arm bands would in most cases be issued to auxiliaries after completion of the civilian defense course, the primary course and a specified first aid course. The primary firemanship course is twenty hours of instruction and makes the men suitable helpers to experienced firemen in handling hose and carrying ladders at the ground level and outside of buildings. The thirty-hour second course and further supplementary courses are required to make auxiliary firemen reach a point of all-round usefulness.

Massachusetts Fire Chiefs' Club Meets

The May meeting of the Fire Chiefs' Club of Massachusetts was held at Attleboro, Mass., with Chief Fred A. Clark acting as host chief.

Charles F. Leavitt of Nahant, former Chief, was made an honorary member of the club. Chief Leavitt retired from the Fire Department because of illness.

Ben Ellis of the Ellis Fire Equipment Company was elected an associate member.

The officers for the year are as follows: President, Chief Robert M. Tappin, Gardner; First Vice-President, Chief Ray Wells, Falmouth; Second Vice-President, Chief Herbert Root, Springfield and Secretary-Treasurer, Chief Timothy McCarthy, Weymouth. The Board of Directors consist of Chief Thomas Slaman, Wellesly; Chief William Blois, Westboro; Chief Herman Gutheim, Cambridge; Chief Charles Stackpole, Lowell and Chief Joseph Scanlon, Lynn.

Montana Firemen's Association Convention Dates Changed

The dates of the annual meeting of the Montana State Firemen's Association have been changed to June 25, 26 and 27, instead of July 23, 24 and 25 as previously listed.

Officers of the Association are James Osborne, Glendive, President; William Girdwood, Billings, Vice-President, and J. A. LaForest, Butte, Secretary-Treasurer. The Executive Board consists of James Dirkin, Anaconda; Joe Munger, Helena, and Chief A. L. Quinn of Missoula.

Fire Protection at the Norfolk Navy Yard

Additional fire fighting equipment recently received by the Norfolk Navy Yard Fire Department entitles the organization there to rank with those of some large Virginia cities in property protection from flames. This new equipment includes an aerial truck and two high-speed pumpers.

The 100-Foot Aluminum Alloy Aerial Ladder Just Received by the Yard

This is the only aerial ladder of its size in Virginia.

Powerful and efficient as any of its type now in service in the country, this new equipment assures the Yard, with its great war-speed industrial plants and valuable ships tied up for repairs, of far better protection from fire loss than it has ever had before. It also adds considerably to the fire fighting facilities in this section that would be called into service if a big conflagration broke out.

Including the additional fire fighting strength given to the Yard station by the new equipment, the total amount of apparatus on call is one 200-horsepower aerial truck, three 1,000-gallon pumpers, one city service truck which carries about 200 feet of ground ladders in sections, and one combination hose wagon equipped with floodlights and foamite powder for oil fires, and which also carries 1,500 feet of standard-type hose.

There are at present seventy-six men in the Fire Department under Fire Chief Waverly B. Sykes and Assistant Fire Chief W. T. Jewell. The unit is under the Operations Department, and that division comes under the direct supervision of Captain B. V. McCandlish, U. S. N., Captain of the Yard.

Two auxiliary stations are to be established in the Yard within a short time, and another is expected to be organized in St. Helena when that section of the Yard begins to assume form.

Friendship Fire Association Elects Officers

With its members serving as auxiliary firemen in regular companies all over the city, a thing undreamed of when the organization was formed, Friendship Fire Association of Washington, D. C., held a rousing wartime meeting which concluded with an election of officers as follows:

Dr. Edward R. Gookin, Chief; Lester E. Steinem, Assistant Chief; Roy A. Wiseman, Chief Secretary; Ben C. Pope, Chief Treasurer, and J. T. Kennedy, Chief Commissar.

Its members for years, friends and benefactors of the Washington Fire Department, the Friendship Fire Association is named after George Washington's famous volunteer fire company at Alexandria. Although organized purely for social purposes, the members joined the Auxiliary Fire Service in a body the day after Pearl Harbor. Most of them are assigned to Engine Co. No. 1 at 17th and K Streets, and meetings are held each Wednesday night in a part of the historic old firehouse known as "Buff's Corner", which includes a library which Dr. Gookin presented to the regular firemen in return for courtesies which they extended to those in the wartime auxiliary service.

ROBERT D. HEINL

The Norfolk Navy Yard Fire Department Lined Up Before Its New Equipment

On the left is Chief Waverly B. Sykes, and on the extreme right is Assistant Fire Chief W. T. Jewell.

ANNUAL MEETING OF I.A.F.C. CALLED OFF BECAUSE OF WAR

Gasoline and tire rationing, Inroads of Draft and Fear of Enemy Attack, Determine Action

THERE will be no Conference of the International Association of Fire Chiefs this year. This decision was reached after a poll of the Officers and Directors as well as a poll of the Active Membership.

Of the Officers and Directors, eight expressed themselves as opposed to the Conference, while three were in favor of holding a meeting this year. Of the Active Membership, sixty-one favored a Conference, while 668 opposed a meeting this year.

Gasoline and tire rationing, as well as curtailment of railroad facilities, due to movement of troops and military supplies, would make it difficult for many to be present. Furthermore, there is a likelihood of the National Government issuing a curb on convention travel.

In some sections of the country, fire chiefs have been ordered to stay within the state borders, so that they would be on hand in the event of any emergency. There is in many quarters a very definite fear of enemy air attack, although the likelihood of any such attack seems small at this moment.

Some fire chiefs face a difficult situation in their departments today, due to the inroads made by the draft, and the inability of replacing draftees with qualified rookies. Because of weakened personnel, many chiefs have felt that their safest move would be to be at hand should any troublesome situation develop.

A somewhat similar action was taken in the case of the 1917 Conference, scheduled for Jacksonville, Florida. This was the first year of the United States' part in the first World War, and suspension of the Conference was deemed advisable at that time. However, the 1918 Conference was held in Chicago.

A total of 1406 questionnaires were mailed out, and to date 803 have been returned. An analysis of the replies so far received is given above.

State	No Conference.	No Conference, But Will Attend If Held	For Conference.	For Conference But Will Not Attend If Held
Alabama	8	1	2	2
Arizona	6	..	..	..
Arkansas	2	1	1	..
California	129	..	..	..
Colorado	11	..	..	..
Connecticut	20	1	1	..
Delaware	5	..	..	..
Dist. of Col.	1	1	..	..
Florida	15	1	1	..
Georgia	1	1	..	..
Idaho	8	..	..	..
Illinois	23	1	1	..
Indiana	4	2	4	..
Iowa	16	4	4	2
Kansas	6	1	2	..
Kentucky	1	..	1	..
Louisiana	16	..	1	..
Maine	11	2	..	1
Maryland	..	..	1	..
Mass.	59	7	..	1
Michigan	10	10	10	..
Minn.	4	..	5	..
Mississippi	4	..	1	..
Missouri	11	1	1	..
Montana	10	..	1	1
Nebraska	13	..	1	..
Nevada	7	..	..	..
New Hampshire.	6	..	..	..
New Jersey	46	6	4	1
New Mexico	5	..	..	..
New York	27	4	2	1
North Carolina	6	2	..	..
North Dakota	2	..	..	..
Ohio	10	3	5	..
Oklahoma	15	..	1	1
Oregon	16	..	..	1
Penna.	42	3	4	..
Rhode Island	12	3	1	..
South Carolina	1	..	..	..
South Dakota	12	1	..	..
Tenn.	7	..	..	..
Texas	15	..	2	..
Utah	5	..	..	..
Vermont	6	..	..	..
Virginia	6	3	1	..
Washington	17	2	..	..
Wisconsin	8	2	3	..
Wyoming	3	..	..	..
Total	668	63	61	11

Ohio Fire Chiefs Meet

The Ohio Fire Chiefs' Association held its annual meeting on April 17 and 18 in Columbus, with Chief Joseph Kirby of Dayton, President of the group, presiding.

Talks on organization and training of auxiliary firemen, fire wardens, air raid wardens and rescue squads were given by Battalion Chief Lee Green and Captain Zaayer of the Columbus Fire Department.

Ray Gill, State Fire Marshal and State Coordinator of Civilian Defense, addressed the gathering and paid tribute to the fire departments over the state for taking the lead in preparation for civilian protection.

Battalion Chief John Redmond of the Chicago Fire Department spoke on the training of auxiliary firemen and warned of the shortage of fire fighting equipment and stressed the need for close cooperation between departments.

District Office Edgar A. Kirby, of the London, England, Fire Brigade, addressed the assembled chiefs and showed pictures of London during air raids. Major Holland, of Wright Field, showed pictures of the Dayton Fire Department and its method of handling fire bombs.

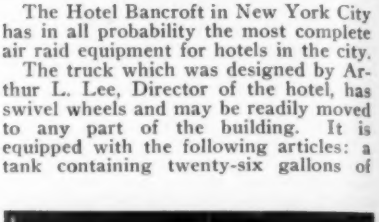
On Saturday morning representatives of the various chemical companies, which manufacture chemicals, used in extinguishing fire bombs, presented a demonstration of their products.

Chief Donaldson and Lieutenant Jordan of the Columbus Fire Department spoke on fire control centers and emergency water supply. George Richardson, Secretary of the International Association of Fire Fighters, told of plans and methods of the Office of Civilian Defense and warned that the shortages in materials for fire equipment were serious.

Air Raid Protection for Hotel

The Hotel Bancroft in New York City has in all probability the most complete air raid equipment for hotels in the city.

The truck which was designed by Arthur L. Lee, Director of the hotel, has swivel wheels and may be readily moved to any part of the building. It is equipped with the following articles: a tank containing twenty-six gallons of water and six fire water buckets, twenty-five sand bags, stirrup pump with thirty feet of hose and sprinkler, fifty feet of garden hose and sprinkler, adaptor, spanner wrench, large chemical fire extinguisher, large soda fire extinguisher, two carbon tetrachloride extinguishers, wrecking bar, peen hammer, pipe wrench, hack saw and blades, hatchet, fire ax, long handled hoe, long handled fire hook, long handled shovel, large first aid kit, helmet, asbestos helmet with goggles, asbestos gloves, several pairs of cotton gloves, six blankets, fifteen foot adjustable fire hook, one red kerosene lamp, one white kerosene lamp, electric lamp flashlights, several pairs of goggles, two gas masks, chisels, fire pails, pails with loose sand, large pliers, screw driver, whistle and chain rope and hook.



One Side of the Air Raid Equipment Truck

New Fire Truck Added to Watonga Fire Department

The Watonga, Okla., Fire Department had recently acquired a new fire truck, a light mobile unit that can get to a fire in a hurry and extinguish it before it makes too much headway.

The new truck has a 200 gallon booster tank with three one-quarter-inch tie-ins which is what the department has been needing on grass fires at the edge of town where it's a long distance to the fire plug.

Watonga water lines carry about forty to fifty pounds of pressure which, on direct hookup, is about all one of the city's standard fire hose will handle efficiently.

But now in case of an emergency, the new truck, in addition to one purchased in 1927, can furnish higher pressures as needed.

Lee Boughton is Chief of the Watonga Fire Department.

Fire Department Improvements at Lewistown

About four years ago a rural fire protection district embracing Lewistown township in Fulton county, Illinois, was formed. At that time a 500-gallon per minute pumper was purchased. As time progressed it was discovered that this rig was not entirely satisfactory for country use. In 1940, the old hose truck which the City of Lewistown had turned over to the district, failed to function and was replaced with a current model commercial chassis of 95 h.p. with 134 inch wheelbase. It was understood that a special rural rig would be constructed on this chassis at a later date. However such a unit was not purchased until the summer of 1941.

After much planning on the part of the department, under Chief "Shorty" Bowton, and Raymond P. Huffman, Barton pump representative, a contract for the construction of the unit was awarded.

The following equipment was specified: Barton GF-250 front mounted pump rated at 250 g.p.m. at 200 pounds pump pressure; two booster reels with 150 feet of one inch booster hose and nozzle on each; four 10 foot sections of three inch hard suction with strainer and hydrant adaptor; two extension ladders, 24 and 28 feet; two roof ladders with folding hooks, 12 and 14 feet; two pike poles, 10 and 12 feet; one 2½ gallon foam extinguisher; two 5-gallon Indian pumps; one axe; one crowbar; one gated siamese 2½ x 1½ x 1½ x 1½; three 1½ inch shutoff nozzles; one bell; one flasher siren; two flashing red warning lights; two electric hand lanterns; two roof-mounted spotlights; two high-powered pick-up lights and one polarized charging plug.

The booster tank holds 400 gallons and is carried in the center of the hose bed with space for hose the full length of each side. The tank is filled at the rear. The two booster reels are mounted in tandem on top of the tank. Three storage compartments and two towing eyes are provided at the rear. In addition to the above equipment, 1,000 feet of 1½ inch double jacket fire hose is carried. The truck will answer all rural alarms and serve as a reserve unit in the city. All ladders and suction hose are held in place by individual, spring-tension clamps.

New Fire Truck for Lewistown Township Fire Department

Pump Tank Extinguishers to Be Distributed by O. C. D.

The Office of Civilian Defense has developed a four-gallon pump tank fire extinguisher which will be distributed to cities within the target area and to certain strategic cities to meet the threat of fires caused by enemy action. The pump extinguisher was developed by the Fire Defense Section of the O. C. D. in cooperation with the Office of Chief of Engineers, the Underwriters' Laboratories and the National Bureau of Standards. The pump tank extinguisher is similar in principle to the stirrup pump, but carries its own supply of water.

To avoid conflict with the production of essental war materials, the pump tank extinguisher will be made of other materials not essential to the production of munitions. The brass pump cylinder plunger has been replaced with porcelain-coated steel and synthetic rubber; special spray nozzles have been made of a simple cast lead or plastic with a deflector which changes the stream into a spray, and the hose has been made entirely of reclaimed rubber.

More than two million pump tank extinguishers will be distributed at the ratio of four to the city block in the target area.

The pump was developed by the Advisory Committee of Civilian Defense which is comprised of representatives of the National Board of Fire Underwriters, National Fire Protection Association, National Bureau for Industrial Protection, International Association of Fire Chiefs, International Association of Fire Fighters, the Army, the Navy, U. S. Department of Agriculture, and the War Production Board.

Since the photograph was taken, the shape of the tank has been changed to a slightly conical form, so that tanks may be "nested" to save space when shipping.

Shown in the picture below are William French and Major General L. D. Gasser of the Civilian Protection Division and Director James M. Landis of the O. C. D.

O. C. D. Pump Tank

Shown examining the first pump tank extinguisher off the assembly line are left to right: William French, Chief of the Fire Defense Section of the Civilian Protection Division; Major General Lorenzo D. Gasser, Director of the Civilian Protection Division, and Director James M. Landis of the Office of Civilian Defense.

New Haven County Chiefs Meet

The annual meeting and banquet of the Fire Chief's Emergency Plan of New Haven County was held at the Oasis, Brandford, Conn., on May 19.

The following officers were elected: President, Chief Ernest Hanson, East Haven; First Vice-President, Chief John T. Bennett, Ansonia; Second Vice-President, Chief Wesley Kantack, South Meriden; Third Vice-President, Chief Raymond C. Spencer, Hamden; Treasurer, Chief Arthur Harris, Meridan; Secretary Chief John Pachl, Annex Fire Department, New Haven; Directors, Chief Richard Williams, Cheshire; Captain Edward Donovan, Milford and Captain Vincent Lee of West Haven; Chaplain, Rev. Edward E. Holahan, New Haven.

Assistant Chief Spaine of New Haven served as Toastmaster and introduced the various officers and speakers. Herbert F. Hotchkiss, Supreme Secretary of the Royal Arcanum, who is a spark of the Boston Fire Department, gave a talk on the activities of the Boston Auxiliary Fire Department.

The principal speaker of the evening was Deputy Chief William H. Taubert of the Second Division of the New York City Department, who spoke on the subject of "Unusual Fires."

Correspondence

Defense Activities of Durham

To the Editor:

The Durham, N. C., Fire Department has added two one-ton trucks, fully equipped to handle small fires in residential areas, such as chimney fires, grass fires, automobile fires, etc.

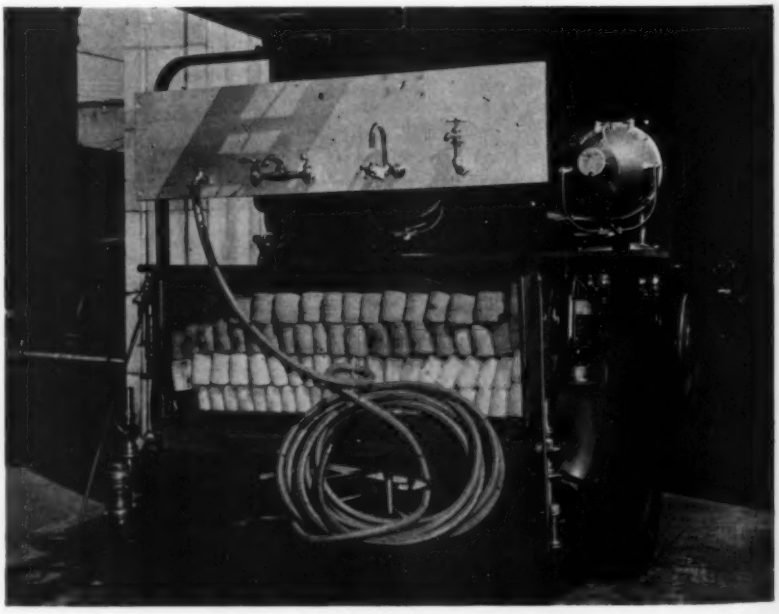
One-Ton Truck Used to Handle Small Fires

In order to meet this emergency the fire department running card has been changed. For example, when responding to straight alarm fires under our set-up prior to the emergency we answered with two big pumpers and a ladder truck. As the running card now operates, one pumper, one of the smaller one-ton trucks and the ladder truck answer. Not only has this given us larger pumpers in reserve, but it has reduced our dollar and cents running $11,100.00.

Fire department records for 1941 show that ninety-eight per cent of fires in Durham could have been handled adequately with the ladder truck, one small truck and ten men.

These small trucks are equipped with 900 feet of 2½-inch hose, two 2½-inch controlling nozzles, one set of reverse couplings, one hydrant wrench, three hose spanners, three hose straps, one crowbar, two hand lanterns, one hose clamp, one tarpaulin, two axes, two soda and acid extinguishers, one 24-foot extension ladder, one 12-foot roof ladder, two brooms,, one 65-foot hand line, one light plant including generator, 200 foot cord, floodlight with 500 watt bulb; one hand operated spotlight and a pike pole. In addition it carries a 120-gallon booster tank equipped with 250 feet of ¾-inch hose with the following type nozzles: one ¼-inch straight tip, one garden hose tip, one spray nozzles; one 20-foot length of ¼-inch suction hose with strainer. The trucks have been in service for two months and have relieved the larger pumpers of many runs. Equipment such as ladders, pike poles, lanterns, etc., has been saved during the past years and used to equip these trucks. Nothing of this nature was bought. The oil lanterns are the ones formerly used on the last horse-drawn steamer in Durham.

I have noticed from a number of publications that advice is being given to bring garden hose into play, especially during the emergency. We are recommending this in residential areas and buildings. In Durham, in rental property especially, they do not have threaded spigots for this use. I have conceived a little idea for an adapter for the four most commonly used spigots, namely, bath tubs, lavatory and kitchen sink. These things can be bought for approximately twenty cents and can be purchased at hardware, dime stores and plumbing shops. The adapter consists of the following: one four-inch piece of garden hose, one male garden hose connection and one hose clamp.



Demonstration Board Showing the Garden Hose Adapter

It is fine to tell folks what to do, but most things we tell them to do cost money. Therefore, they do not care to spend the money. That is why this is working out so well here.

This adapter has been demonstrated a number of times at the University of North Carolina to representatives from cities and towns throughout the State, and has met with much favorable comment. In addition to this, numerous demonstrations have been made to citizens of Durham. Approximately five thousand people have seen this appliance.

Very truly yours,
FRANK W. BENNETT, Chief
Durham, N. C.

Two Die as Auto Collides with Fire Engine

The first fatality among Paterson's (N. J.) civilian defense workers was listed when William G. Conklin, an auxiliary fireman,, died from injuries he received in a crash between an automobile and a fire engine, aboard which, as part of his training as an auxiliary fireman, he was responding to an alarm.

Fireman August Schneider, a member of Engine Company No. 4, who received a fracture at the base of the skull, died the next evening.

Engine Company No. 4 was on its way to a rubbish fire at the time of the crash. The fire engine was almost across the intersection at Mill and Grand Streets, the firemen going north on Mill Street, just a minute after the alarm was turned in.

The car struck the rear mudguard of the fire engine, cutting the rear left tire and rear platform. Conklin was riding in the "basket" on top of the hose, while Schneider was on the side platform of the truck. Conklin was tossed from the "basket" and Schneider was knocked from the running board.

For Practical Discussion of Current Fire Department and Fire Management Problems

FIRE HAZARDS FROM THE STORAGE OF GASOLINE

FIRE Departments are already running into numerous fires involving illegally stored gasoline, such storage being brought about by gasoline rationing. If nationwide gas rationing is decreed, the hazard of illicit storage will not only be widespread, but it will become more acute.

The steps being taken by fire departments to check this menace are outlined in the following discussion, which is a continuation of that which appeared in the April and May issues of FIRE ENGINEERING.

The topic for discussion next month is given in the box on the following page. Readers are invited to send their comments on this subject for inclusion in the discussion. Address communications to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York, N. Y.

HERE IS THE PROBLEM

1. **In view of the threatened rationing of gasoline, and the possibility of persons storing it on premises or carrying extra supply in unsafe containers, what steps would you suggest to prevent such practices?**
2. **Have you legislation already enacted which would enable you to control the hazards of unsafe storage of gasoline around homes or places of business?**
3. **Briefly, what does such legislation include?**

Discussion of the Question

Ben J. Zahn, Chief, Ann Arbor, Mich.: To date we have experienced little trouble from the storage of gasoline, but have already given thought to this matter.

I say we, as this refers to our buildings inspector and myself. We work in close cooperation with each other on matters of this kind.

We are governed by the regulations of the State Fire Marshal which provide that "No person, firm or corporation keeping gasoline or naphtha for sale or use, shall store or permit to be stored, within the State of Michigan, any gasoline or naphtha within a building used for any other purpose, except when contained in a vapor proof supply tank.

"All cans, drums, barrels, tanks or other receptacles holding or containing more than five gallons, and not more than sixty gallons, in which gasoline or naphtha is stored or handled may be placed above ground only if stored in a separate box or building well ventilated at or near floor, not exceeding one story in height, which building or box shall be used exclusively for the storage of gasoline or naphtha, to be located at a distance or not less than ten (10) feet from any other building, and such building or box shall at all times be locked when not in use: Provided, that nothing in these regulations shall apply to the reservoirs of motor vehicles.

"All tanks in which gasoline or naphtha is stored in quantities exceeding sixty (60) gallons shall be placed underground with the exception that the State Fire Marshall may make special and specific requirements for the arrangement of tanks at new and existing jobbing plants, storehouses and distributing stations and may grant special permit therefor."

R. E. Whalen, Fire Marshal, Elgin, Ill.: We have a city ordinance governing the amount of gasoline that can be carried above ground beside regulations for installations for greater amounts which are not over five gallons above ground and must be safety containers. Any amount above that must be buried two feet underground in approved tanks conforming to city ordinance and state law for which a permit must be taken out and inspection of installation made before tank is covered.

I believe education will help to prevent people from trying to illegally store greater amounts, although you will find some who will try to get away with it. In that case prosecution may be necessary.

Burr Hamilton, Chief, Marion, Ind.: I would suggest that gasoline dealers not be permitted to fill any container for use above ground with gasoline that is a violation of the law. I would make the dealers responsible for the penalty.

The Indiana regulations read as follows: "Gasoline in sealed containers or safety cans of not more than five-gallons capacity, and not exceeding a total of ten gallons shall be stored in any building."

Frank P. Walsh, Chief, Hackensack, N. J.: The City of Hackensack has an ordinance regulating the storage of inflammable or combustible materials.

This ordinance reads: "No hay, straw, excelsior, cotton in excess of 500 pounds, oil, gasoline, naphtha, benzine, or other similar inflammable or combustible materials, shall be stored, or kept, except in pursuance of a permit issued therefor by the Chief of the Fire Department; provided, however, this section shall not prohibit the storage or keeping without a permit of not exceeding five gallons of oil, gasoline, naphtha or benzine, if contained in an air-tight metal container.

John C. Long, Chief, Danville, Va.: We have a city ordinance against storing over one gallone of gasoline in dwelling houses, apartment, houses, tenement or garages. This must be stored in an approved self-closing metal can free from leaks.

This ordinance forbids service stations from selling gasoline in any kind of container but an approved self-closing metal can.

I would suggest that any city that does not have such an ordinance adopt one, and that the fire chief see that it is enforced.

Michael W. Lawton, Chief, Middletown, Conn.: Cities and towns having no ordinance covering the storage of gasoline, naphtha, benzine, kerosene and oil should enact some law to govern the storage in large quantities of all such inflammable liquids.

We have an ordinance covering such storage which has been in effect since 1934.

"No gasoline, naphtha, benzine, kerosene or oil shall be kept or stored within the limits of the city in other than closed tanks or receptacles or in receptacles located in fireproof buildings speciall constructed and used for the storage of gasoline, and approved by the Chief Engineer, and then under such regulations and restrictions as he may impose. No greater quantity of gasoline, naphtha or benzine than five gallons shall be kept or stored within ten feet of any building, other than a building used specially for

Wartime FIRE-FIGHTING

. . . EVERY CHIEF KNOWS ITS ADDED RESPONSIBILITY

THE ever-present menace of fire assumes even greater importance and magnitude with the added threats of incendiaries . . . sabotage . . . air raids. Trained men and the most modern of fire fighting equipment are needed more than ever before to wipe out even the smallest "blaze" before it reaches big-area proportions.

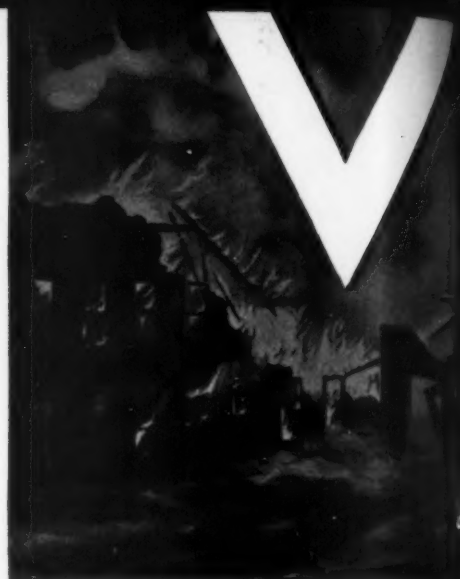
Obsolete, antiquated fire apparatus can hardly be expected to meet the extra demands for speed . . . power . . . traction . . . safety . . . dependability required in wartime fire fighting. Investigate modern FWD apparatus and its many advantages of four-wheel-drive power and performance in getting to fires faster — safer — under all conditions of road and weather.

FWD fire fighting trucks are built in a complete line — all types, all sizes — with rotary or centrifugal pumpers in triple, or quadruple combinations in capacities of 500, 750, 1000 and 1250. They are backed by nationwide service facilities with replacement parts available at commercial vehicle prices.

THE FOUR WHEEL DRIVE AUTO COMPANY

Canadian Factory: Kitchener, Ontario

CLINTONVILLE • WISCONSIN



VICTORY OVER FI
IS IMPORTANT, TO

A number of serious fires have occurred in defe
plants during the past year. Prevention of such
damage is of the utmost importance to the defense eff
The purpose of the above poster, recently distribu
by the Associated Factory Mutual Fire Insurance Co
panies to their insured industrial properties, is to
attention to fire's serious threat to production. Altho
emphasis is properly given to protecting plants agai
sabotage, the costly fires which have thus far occur
have been due to ordinary carelessness, inadequa
employe training, or lack of necessary safeguards.
Fire Engineering, January, 19

FWD Model KSU 750-gallon triple combination
recently purchased by Salt Lake City, Utah. The
unit, equipped with five-man cab, is built on a 100-
wheel-base and is powered by a 204-horsepower
Other equipment includes a 100-gallon booster tank
two aluminum ladders, 14 and 24 feet in length.
hose body has a capacity of 1200 feet of 2½ inch

FWD FOUR-WHEEL-DRIVE FIRE APP

RUN HAZARDS REDUCED WITH FOUR-WHEEL-DRIVE

Power and Performance

JUST as surely as you get more than twice as much water through two four-inch fire hoses as you do through one four-inch hose — so do you double your certainty of getting to the fire quicker and safer with four-wheel drive apparatus — for with FWD — all four wheels are alive with power and grip the road for the run — and slippery roads and bad grades, impassable to ordinary vehicles — are safely negotiated with FWD's. The two driving axles of the FWD, delivering powered traction to front as well as rear wheels, give you double protection in safety and dependability — protect the lives of firemen and users of the street — FWD is doubly sure of getting to the fire. Its increased traction and positive control save minutes that count. Cities from coast to coast look to FWD apparatus for this extra safety and performance.

FWD Model KSU 750-gallon triple combination pumper in service in the hilly copper mining city of Houghton, Michigan. The unit is powered with a 200-horsepower engine and built on a 180-inch wheelbase. Carries 119 feet of various length aluminum ladders, 1200 feet of 2½ inch hose, and 200 feet of ¾-inch hose.

The Shell Oil Company recently placed this new FWD Model KHS 500-gallon pumper in service at their Martinez, California refinery. Powered with a 107-horsepower engine. Built on a 180-inch wheelbase. Hose body has capacity of 750 feet of 2½ inch hose and 1200 feet of 1½ inch hose. Foamite equipment has been installed instead of usual booster tank.

FWD

FOUR WHEEL DRIVE

FIRE APPARATUS

***Built By the Oldest and Largest Four-Wheel-Drive Truck Manufacturer**

THESE FWD MEN SPECIALIZE IN FIRE APPARATUS

SORENSON—Chief metallurgist and one of foremost metallurgical research men in United States. On staff 23 years. Knows kind of steel that makes FWD's their outstanding durability. Nationally recognized as authority on machinability of steels.

DONALD OLEN — Industrial Engineer and Production Coordinator at FWD. Gained his industrial experience in the FWD factory, beginning in 1929 and carrying on in various supervisory capacities up to 1939 when he took over complete planning and coordination of all production.

EVERETT BARD—Designer "and artist-engineer" in the FWD Engineering Dept. Began with the FWD organization in 1927 in the factory—like most FWD veterans. His specialty is paint specifications, styling and enhancing the appearance of FWD fire trucks.

PPARATUS FOR WARTIME FIRE-FIGHTING!

domestic use shall be kept, used or stored in any part of any building used for habitation, and no volatile inflammable fluid in quantity exceeding one gallon contained in an approved safety can, and no non-volatile inflammable fluid in quantity exceeding thirty gallons, shall be kept, used or stored, except in the tank of an automobile, motor boat or stationary engine, within fifty feet of any building used for habitation, unless a permit has first been obtained therefor from the head of the fire department under such terms and conditions as he may prescribe."

J. E. Dellinger, Chief, Macon, Ga.: It is possible that we will have some who will store gasoline and keep a supply on the premises. However, I think the tire shortage will eliminate some of this.

It is unlawful for anyone to keep or store more than five gallons on premises and that must be in safety containers.

Michael J. Corrigan, Commissioner, Chicago, Ill.: I would suggest constant inspection and supervision of those premises likely to store gasoline. The inspection would serve two purposes. The fire officer would become familiar with the premises. His presence would act as a determent if future storage were contemplated. The occupants would feel that the inspector would return at some future time.

The Chicago Fire Prevention Ordinance follows almost to the letter the Recommended Flammable Liquid Ordinance of the National Fire Protection Association.

Frank V. Best, Chief, Galveston, Tex.: To prevent the storage of gasoline I would suggest that an ordinance be enacted immediately prohibiting the storing of gasoline in homes or on premises and prohibiting the carrying of extra supplies in unsafe containers on the premises.

Like all cities we have an ordinance regulating the building of underground tanks for filling stations which have been approved by the National Board of Fire Underwriters.

Barney J. Houston, Chief, Cincinnati, Ohio: We do not allow gasoline or other volatile storage in residential property. However, small quantities are frequently found by our inspectors in small containers. This rarely exceeds one gallon and is usually in one quart containers. This quantity is usually for home dry cleaning purposes and other similar uses. We do not find it possible to completely eliminate it, but we do hold it to a minimum.

We only allow ten gallons of gasoline in business properties where nothing else suffices, but it must be kept in five-gallon safety cans. On all other volatiles we try to keep the users from carrying over a one-day supply within the building. We endeavor to have storage beyond this point kept in an out-building.

Our Fire Prevention Ordinance classifies anything that is not in accordance with safe practice a fire hazard and we issue a violation notice with the law printed thereon. The owner is given ample time to clear up the violation.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

Do you charge for out-of-town runs by your department?

If so, what is your schedule of charges?

Is any insurance provided for the men leaving the city to operate on out-of-town fires?

If so, how much protection per man?

If no insurance is provided, who pays hospital costs, etc., of men injured while out of town on fire department duty?

James Thompson, Jr., Chief, Irvington, N. J.: Aside from the danger of poor storage, it is also very unpatriotic to hoard gasoline or any other necessary commodity. I would suggest that if the municipality has not a law to control the storage of inflammable liquids, it immediately adopt the suggested code of the National Board of Fire Underwriters.

We have enacted the above into a law, slightly changing it to fit our particular problems.

The storage of Class "A" liquids in any structure in excess of five gallons shall be illegal unless a permit is granted by the Chief of the Bureau of Combustibles.

We do not issue permits, unless the liquid is sealed in its original container, the quantity being determined by the individual case depending on occupancy, exposure, hazard, type of structure, etc.

Waldo Merrill, Chief, Council Bluffs, Ia.: The rationing of gasoline has not been felt in this locality, although I can see where people will attempt to store gasoline. I might say at this time, saving of paper for national defense is also becoming serious as I find large amounts of loose paper stored waiting for someone to come along and pick it up.

At this time, I believe the enforcement, or the passage, of the Underwriters' Fire Prevention Ordinance, would be a great help in curbing the storage of gasoline. A permit is required for the storage or handling of a total quantity of Class I liquids in excess of one gallon in any dwelling, apartment house or tenement, and in excess of six gallons in any other building, and in excess of ten gallons outside of any building.

I would request that dealers furnish the name and address of any person purchasing and carrying one gallon or more of gasoline away from the station, to the Chief of the Fire Department or the Fire Prevention Bureau.

About a year ago, I tried to have introduced in the City Council for passage, the complete Underwriters Fire Prevention Ordinance, but it was never passed.

O. F. Romann, Chief, Cleveland Heights, Ohio: So far we haven't had to cope with this situation. However, if such a condition arises and people resort to keeping gasoline on their premises, we will have to rely mostly on their honesty and good judgment in this matter.

Our ordinance definitely states "A permit shall be required for the handling or storage of Class I liquids in excess of one gallon in any dwelling,

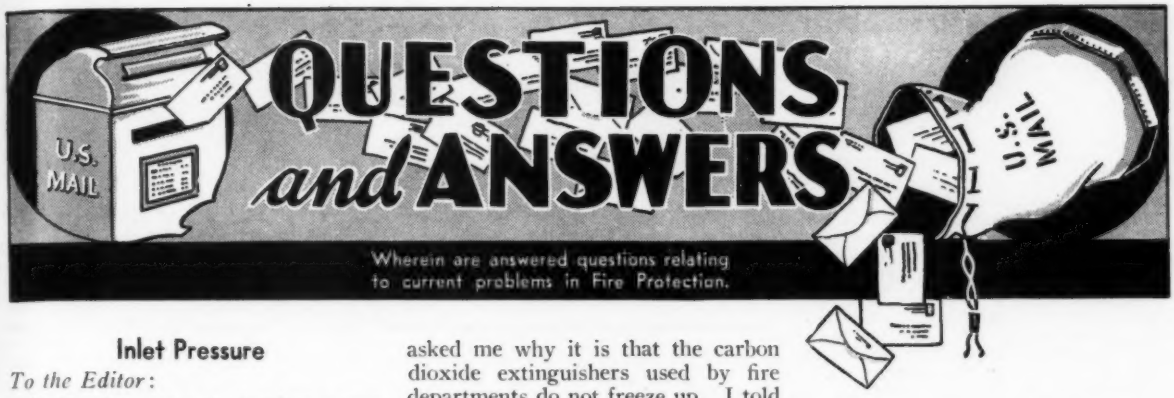
(*Continued on page* 375)

School Children Participate in Incendiary Bomb Demonstration

School children of the Gorge Washington and the Eleanor Van Gelder Schools in Edgewater, N. J., recently participated in a demonstration of the burning and extinguishing of incendiary bombs. They did the job equally as well as the grown ups.

Besides instructing the teachers and pupils of the schools, the Edgewater Fire Department, under the direction of Chief George P. Lasher, have instructed all of the auxiliary groups by such demonstrations. It is felt that they will be better able to handle these bombs should the occasion arise.

One of the Children at Work on the Extinguishing of an Incendiary Bomb



Inlet Pressure

To the Editor:

If No. 1 pumper is drafting water from a pond and discharging through fifteen hundred feet of 2½-inch hose to a second pumper, what pressure would be needed at the first pump to give an adequate amount of water to the second pumper?

What would the friction loss, if any, per hundred feet amount to?

L. D.

Answer: In the problem you give, the friction loss in the layout cannot be determined unless we know the pressure at the second engine, the length and diameter of the line of hose that the second engine feeds and also the diameter of the nozzle.

When we have this information, we can solve for the flow from the second engine which will also be the flow between the two engines. Having the flow, the friction loss can be determined.

Ordinarily, ten pounds inlet pressure is considered satisfactory in relay lines. In other words, the first engine should deliver water through the hose and have a residual pressure of ten pounds where the hose is connected to the second engine.

For your information, the following figures are given for friction loss in 1500 feet of 2½-inch hose for various flows:

Flow in G.P.M.	F.L. Per 1500 Ft. 2½-In. Hose
160	99
200	151.5
220	180
240	211.5
260	246
300	318

Freezing of Carbon Dioxide

To the Editor:

With regard to distinguishing the different burning bombs, it is understood that magnesium burns with a very bright white blinding flame; the oil bomb can be detected by its dense black smoke; the phosphorous bomb can be distinguished by its deep yellow flame. How can one tell a sodium or potassium bomb when burning; what type of flame and smoke do these two bombs give off?

I recently gave a lecture on incendiary bombs and explained how the various extinguishing agents act on the magnesium bomb. One fellow asked me why it is that the carbon dioxide extinguishers used by fire departments do not freeze up. I told him that as far as I knew liquid carbon dioxide was non-freezing. He stated that his brother operates a tonic factory and, of course had the liquid carbon dioxide in tanks. He said not only does snow and ice form on the outside of these tanks, but the liquid inside also freezes. During hot weather this reaction is more severe. During this stage, when the valve is opened, there is nothing discharged through the pipes, he states, because the liquid is frozen solid. He said the tanks are placed over small oil stoves to thaw out and after a while the carbon dioxide comes through the discharge opening. Will you inform me whether this condition actually takes place, and if so, what causes it? H. L. R.

Answer: With regard to identifying the various types of bombs, the magnesium bomb, as you state, burns with a very white, blinding flame; the oil bomb can be detected by its dense black smoke; the phosphorous bomb can best be distinguished not by the flame, but by its plume of white smoke which it throws off. It is used in connection with smoke screens, because of its ability to create smoke.

Sodium or potassium bombs cannot be identified by any evidence when they are burning, except that when water is thrown on them, they react very violently, almost to the point of explosion.

These latter two types of bombs are not expected to be used by the enemy, as they are not nearly as effective as other types of incendiary bombs.

With regard to your second question, we contacted Mr. C. E. Gischel of Walter Kidde and Company, New York City, and he advised us as follows:

"A carbon dioxide fire extinguisher is not the same as an ordinary carbon dioxide commercial cylinder. In the commercial cylinder the carbon dioxide is allowed to vaporize from the liquid state when the valve is open. In the fire extinguisher the design is such that this does not occur.

"When carbon dioxide vaporizes from the liquid to the gaseous state, considerable heat is absorbed, which is called the heat of vaporization. This removal of heat so reduces the temperature of the liquid in the commercial container as to cause it to solidify and freeze after sufficient discharge.

"With the fire extinguisher, this expansion of vaporization does not take place in the cylinder on discharge, but is forced to take place only at the nozzle where it cannot clog or cause stoppage.

"With the commercial containers, and the slow rate of carbon dioxide discharge usually required for delivery from these, elimination of freezing from the liquid in the cylinder is not at all important, but it is of great importance in a carbon dioxide fire extinguisher. In the development of this type of fire extinguishing unit, special means have been invented to eliminate the possibility of freezing.

"A simple analogy might serve to clarify the difference between a commercial carbon dioxide cylinder and a carbon dioxide fire extinguisher: take a teaspoonful of alcohol and place it in the hand; it evaporates quickly and causes a reduction of the temperature of the liquid and also a reduction in temperature of the hand at the point of contact. Both of these reductions in temperature are caused by the removal of heat from the liquid during its rapid evaporation. With the vaporizing of carbon dioxide, the rate of temperature loss is much greater and the vaporizing actually causes liquid within a container to freeze and solidify in commercial cylinders.

Again using alcohol, if we put it in a pressure container with a controllable outlet, apply pressure in the container, invert the container, and then open the valve, the alcohol will be pushed out by the stored pressure, but its temperature in the container will not drop. The temperature of the alcohol will drop only after discharge when it reaches the atmosphere and is permitted to evaporate.

Conductivity of Black Rubber

To the Editor:

Some time ago you stated in FIRE ENGINEERING that black rubber boots and black rubber gloves were fairly good conductors of electricity. How about black automobile tires? What makes these rubber articles electrical conductors? If some substance is added to the rubber which causes the conductivity, would it be possible to eliminate it? W. H. C.

Answer: It is the addition of carbon black that makes rubber articles conductors of electrical current.

In rubber tires carbon black plays an

extremely important role. Roughly 3½ pounds of carbon black are used in each tire. Mixed in the ratio of one part black to two parts rubber, the resultant wearing qualities are more than four times that of rubber alone.

In the electrical industry, the use of carbon black is quickly assuming great importance. For, although rubber has always been considered a good insulating material, the addition of the right kind of carbon black can give it high conductivity qualities.

Static electricity, even in minute amounts, is often a danger in the presence of highly volatile motor fuels, anesthetics, and chemical solvents. Further, the discharge of static electricity may effect rubber stock deterioration.

By using carbon black in the rubber, a way is found to dissipate static electricity and guard against these dangers. In fact, it is possible to achieve either a high insulation value or a high degree of conductivity, depending wholly on proper selection of carbon black from the many grades commercially available. Natural rubber has an electrical resistance of 10^{15} ohm-cms, or 1600 billion times that of rubber loaded with forty to forty-five parts carbon black of a special conductive type.

In other words, if it weren't for carbon black, your auto tires would be giving you a scant few thousand miles of wear when all of us are trying to get maximum mileage out of every tire. And also, if it weren't for the electrical conductivity of the carbon black in your tires, you might have difficulty operating your car radio, for it is through the tires that ground is made.

It is this same carbon black that makes black rubber boots and gloves conductors of electricity. Carbon black could be eliminated, but more harm than good would be done, particularly in the case of tires.

One for Our Readers

A request has been made to the Editor for the name of the oldest active volunteer fire company in the United States. Our readers are requested to submit names of old fire companies together with the dates of their establishment. Such list will be published in a subsequent issue of FIRE ENGINEERING.

Tires Destroyed in Fire

A spectacular fire of undetermined origin in a tire shop at 375 West Santa Clara St., San Jose, Calif., on May 8, destroyed nearly $75,000 in heavy duty automobile truck tires.

The fire department found it tough going as the fire apparently had a good start before an alarm was sounded.

While spectators and members of the auxiliary civilian defense fire corps managed to roll some tires out of the building, the bulk of the stock was lost.

Firemen waged a futile two-hour fight to extinguish the flames and an adjoining garage was also destroyed.

Several firemen and auxiliary firemen suffered minor injuries during the fight which called out most of the San Jose fire fighting equipment.

BOB GREENOCK.

Our inquiring reporter overhauls the firemanic news of the day

It's a Tough War!

Wartime restrictions are playing hob with the Fire Service and its friends. Newshawk J.K. sends us a story about how there's gloom amongst Hannibal (Mo.) kids who have been boasting about their rides with Fire Chief Gwinner. Seems the old tire rationing racket has forced the Chief to give up his practice of driving the youngsters to and from a WPA-sponsored nursery school in his auto'.

And out'n Ioway, there's sadness among the Oldtimers who for years have gathered with the Brothers in the firehouses of Cedar Rapids to play a game of cards. The war has impelled the City dads to issue orders closing all doors "for duration" to visitors not on official business.

* * *

Firehouse Finally Finds Tenant!

The Glen Gardner (N. J.) fire house finally has a fire engine—after 19 years! Uh huh—the Washington (N. J.) Fire Department's old engine was purchased for $200 raised at entertainments sponsored by the Glen Gardner Company. The fire house was erected on Main Street in Glen Gardner back in 1924 but when the bills were paid there wasn't enough left to buy equipment—and so the firehouse hasn't been "in service" until now. Deponent saith not how much more cash will be needed to properly put the old truck in a No. 1 shape.

* * *

The "Seat" of the Fire!

Allus get to the 'seat' of the fire, has been motto of Battleboro (Vt.) F.D. and so when fire started—of all places—in Fireman George Hill's pants during a meeting of firefighters, Fire Chief Henry E. Whitney "made a quick stretch" and directed his men to "attack the blaze" "at its seat"—right where George sits down. We dunno what "forcible entry tools" were used, but the account of the "conflagration" claims the blaze was "confined to place of origin" and the damage was "estimated at 71 cents." Oh yes—fire was caused by loose matches in a pocket. We wot not, but suspect George is eating off the mantelpiece, these days!

* * *

Hot Off the Tape

Thirty pupils and six teachers of Lincoln School, Chester (Pa.) were overcome in their classroom by some form of gas believed to have been taken in through ventilating system . . . John Burgos, City Water Dept. employee, Santa Monica (Calif.), was digging around a meter when crowbar stuck cable carrying 4,200 volts. Loud report! streak of flame—end of crow bar melted away!—and Bergos? Just some singed hair on his arms! Wonderful luck some men have! . . . Broderick Tighe, 52, member of Jersey City F.D. for 21 years died of heart disease while fighting blaze. . . . In Radnor (Pa.) 11-year old schoolboy saw pool of gasoline beneath a teacher's automobile and dropped lighted match to see if it would burn. It did! Car and 4 new tires total loss. . . . A woman deaf mute was saved from possible death in her blazing home in Newark (N. J.) by her 7-months old dog Tarzan, who tugged at her housecoat, led her to door. . . . Two purely coincidental fires, in different rooms of Hotel Saxonia, New York City, within an hour, sent two to hospital and burned a rescuer who helped get out victims; Wm. Weland, 21, was held in prison on non-support charge. He wrapped himself in blankets in his cell and with arms inside blankets, lit matches and set blankets afire. Taken to hospital "for observation." . . . George McFarland, aged 107, accidentally placed burning match in his pocket—died of resulting burns. There's no fool—". . . . Bill Herries, demon fire photographer exhibited ten of his best pictures in a New Jersey salon of defense photographs got nice comments. . . . Kenneth Deiter, 22, employee of International Ry. Co. Buffalo (N. Y.) carried matches in gasoline impregnated work clothes. You can guess result. . . . Chief Bat Gays, Superior (Ariz.), is one of few chiefs who puts out fires with a tea-kettle. . . . A city fireman canvassing in Albany (N. Y.) rang a doorbell. Did he get a red face when he found it was home of his boss—City Fire Chief Michael J. Fleming. . . . Fire destroyed a car belonging to C. W. Cramer of Chicago outside suburban Independance (Ill.) but firemen weren't entirely too late. They arrived in time to salvage all his nearly-new tires.

* * *

Otherwise Everything Was Quiet

You remember the old wheeze about nothing happened, but the barn and the house burned, etc? Well, that's like the goings-on in Elizabeth (N. J.) where, in section of N. Broad St. between Nos. 420 and 436 "nothing happened"—but everything went boom! While a police riot squad was rushing to Green Room Cafe at former number to halt a brawl, firemen sped to 436 and led three families to safely from burning building. Patrolman Russell Mayer was knocked down and injured in Tavern fight and three men were arrested. Otherwise, all was serene!

* * *

"Shoots" Fires with Camera

Pipeman James (Hot) Dorris of the Nashville (Tenn.) F.D. goes to a lot

of fires on his off hours. He "shoots" these blazes with a camera, for "Hot" is the Department's official photographer —when he isn't putting in his regular 12 hours as a Member of Eng. Co. No. 7. It's said that some of his pictures play important parts in the prosecutor's case in arson trials.

* * *

Flaming Flood in Flickerland

Flaming gasoline pouring down both sides of Vine Street, Hollywood (Calif.) two blocks from celebrated intersection of Hollywood and Vine, set autos afire, destroyed five. Police expressed "mystification" at source of fuel, but firemen privately expressed displeasure and disgust at having to put out fire and sweep streets at same time.

Buffs' Corner Opened

A cozy nook known as "Buffs Corner" has been opened in the historic firehouse of Engine No. 1 in Washington, D. C., by the Communications Unit of the Auxiliary Fire Service. "Buffs Corner" is expected to be to Capital volunteer firemen what the "Amen Corner" was to the newspapermen of old New York. Engine No. 1 on K Street, where the unit has just finished sixty hours of training, is famous because it is the first company due at the White House and carries keys to the White House gates.

Here in "Buffs Corner" within sound of the "joker," meetings of the wartime citizen firemen will be held. Dr. Edward Gookin, No. 1 Washington buff, former honorary deputy chief of the Boston Fire Department and president of the unit, has undertaken to fit up the corner. Dr. Gookin has presented a set of FIRE ENGINEERING books of instruction for officers and men. To this Charles E. Rowe, whose early allegiance was to the Chelsea, Mass. fire-fighters, has added a complete file of books describing in detail the great fires of the last twenty-five years. There will also be a collection of fire pictures and a museum.

The Communications Unit, whose job it is to assist Chief Stephen T. Porter of the Washington Fire Department in calling out the auxiliary firemen in air raids, and sabotage fires, is unique in that its membership is composed entirely of "buffs." They organized a year ago as the Friendship Fire Association named after the old Friendship Fire Company at Alexandria, Va., of which George Washington was a member. The day after Pearl Harbor they enlisted as a body in the Auxiliary Fire Service.

Visiting firemen and buffs from other cities will be especially welcome at the Wednesday night meetings and a guest book has been provided for them to register in.

R. D. HEINL.

Cover Picture

When thirteen tank cars, filled with fuel oil and gasoline, piled up in a B. & O. railroad wreck near Toll Gate (Ritchie County), W. V., recently, the burning liquids followed a stream to the town of Toll Gate, and set fire to a number of buildings. Before the fire was extinguished, the fire damage reached a total of $100,000. One of the buildings destroyed was the U. S. post office.

Abilene Gets New Truck

The Abilene, Kansas, Fire Department has just received a new modern fire truck. It is a two-ton truck with a three-ton motor. It is equipped with dual mud grip tires. The cab has a heater, defrosters and electric windshield wipers.

There is a row of compartments on both side of the truck with a door on each one. The front compartment runs across the truck immediately back of

Fire Chief C. G. Lipps

the cab and has a 500 gallon two-stage series-parallel centrifugal pump. A tray above the pump holds two lines of 1½ inch hose. One line has 150 feet of hose and the other has 100 feet of hose. The hose can be taken out from either side of the truck. These two lines have nozzles already attached and the hose is hooked up on a siamese off the pump. The nozzles are a combination with a ¾ inch nozzle and a ¼ inch nozzle welded together. The small nozzle is used from the 200 gallon booster tank and as soon as a line is laid into the pump from the hydrant then the nozzle is changed to ¾ inch nozzle. In other words, the hose is laid from the hydrant to the pump which is at the fire. Ladders and all minor equipment are on this truck so by placing the pumper at the fire the department has access to the equipment on it.

The second compartment on each side has the different hand extinguishers in it, consisting of 5-gallon hand pumps, carbon tetrachloride, carbon dioxide and foam extinguishers; pompier hatchets; hand lanterns; extra spanners; wrenches; gas masks and other minor equipment.

The third compartment, which is directly over the rear wheels, has salvage covers, raincoats, union-alls and helmets.

The last compartment holds nozzles, fog nozzles, axes, shovels, crow-bars, a smoke ejector, hose clamp, hot wire cutter and 250 feet of 1½ inch hose.

The hose bed is loaded with 1,300 feet of 2½ inch hose. At the back end of the truck under the hose bed in a small compartment with 100 feet of chemical hose which is connected to the pump and is used for small fires, such as grass and trash fires.

A compartment back of the cab and over the tray that carries the 1½ inch hose has ropes, saws, hammers, lathes, squeegees and mops in it.

The ladders carried on the truck consist of a 3-section 35 foot, a 2-section 24 foot, a 14 foot straight side, a 14 foot and 12 foot roof ladder and a 10 foot attic ladder. All these are aluminum ladders.

The two 4 inch hard suction tubes are carried under the ladders in a concealed compartment and are pulled out from the back of the truck. The folding attic ladder is carried in one of the hard suction tubes and four 5 foot sections of the hot wire cutter in the other.

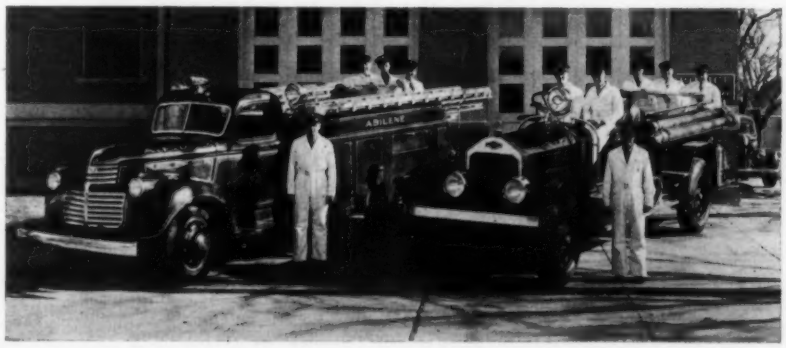
A siren with flasher is mounted on the cab. Directly behind the cab on each side are flood lights that can be turned in any direction. These turn on from the head light switch in the cab. All compartments have dome lights that also operate with the head light switch. All lights turn off separately if not needed.

The Department also has a 1,000 gallon pumper, a ladder truck and a hose truck. Paid men of the Department consist of the Chief, C. G. Lipps, and two paid drivers. Twelve volunteers respond to all alarms.

Long Chief at Ames, Ia.

Sam Long, who has served the Ames, Ia., Fire Department as Assistant Chief for sixteen years, was named Chief to succeed L. R. Morris, who recently retired.

Chief Long has been a member of the Ames Department for twenty-six years, serving as driver of the first piece of motorized equipment used in that city.



Members of the Abilene Fire Department

FALSE ALARMS

"Henry Just Can't Seem to Relax Unless He Has His Incendiary Fire Equipment Handy!"

traffic light changed red, yellow, green; red, yellow, green. The polite policeman stepped up beside her car and asked, "What's the matter, lady, ain't we got any colors you like?"

Dept. Physician: "I don't like your heart action. You've had some trouble with Angina Pectoris."

Fireman: "You're partly right, doctor only that ain't her name."

Crazy

Patient: "Everybody says I'm crazy, Doctor."

Doctor: "Why?"

Patient: "Because I like pancakes."

Doctor: "Oh, but that's nothing. I like pancakes too."

Patient: "Is that so? You must come over sometime soon. I've got two trunks filled with them."

Gal: "Would you come to my aid in distress,"

Fireman: "Honey, it wouldn't make any difference what you were wearing."

"Bill got his nose broken in three places."

"Why doesn't he keep out of those places?"

H to O

Fire College Instructor: "What's the formula for water, Jones?"

"H I J K L M N O," spelled out the rookie.

"What's that?" barked the F. C. I.

The rookie slowly repeated the letters.

"Whatever are you driving at?" demanded the F. C. I. "What gave you that idea?"

"You, sir," said Jones. "You said yesterday it was H to O."

They sat side by side in the moonlight,
She murmured as she smoothed his brow;
"Darling, I know that my life's been fast,
But I'm on my last lap now."

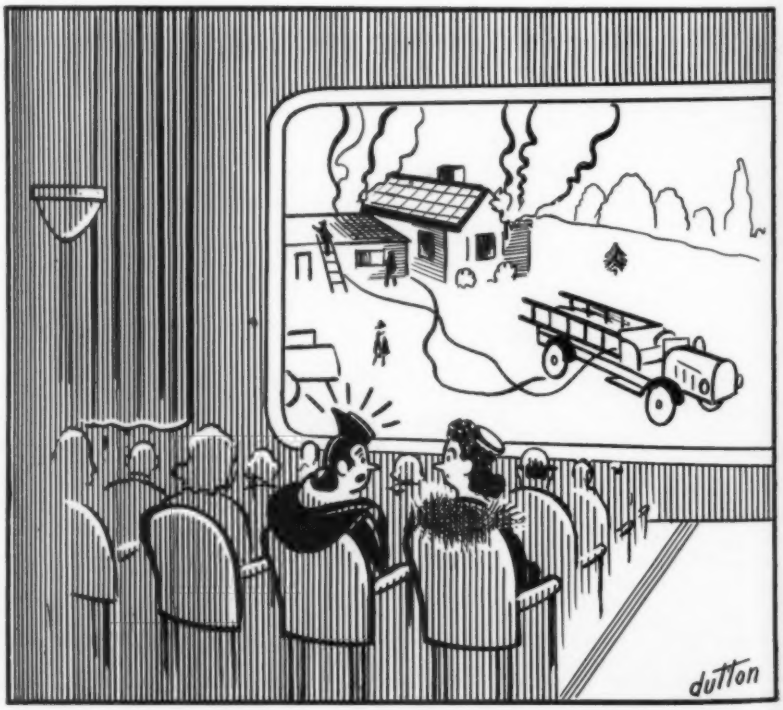
She was trying to work her way through college by selling subscriptions to the Saturday Evening Post but all the fellows wanted to take Liberties.

To the Dogs

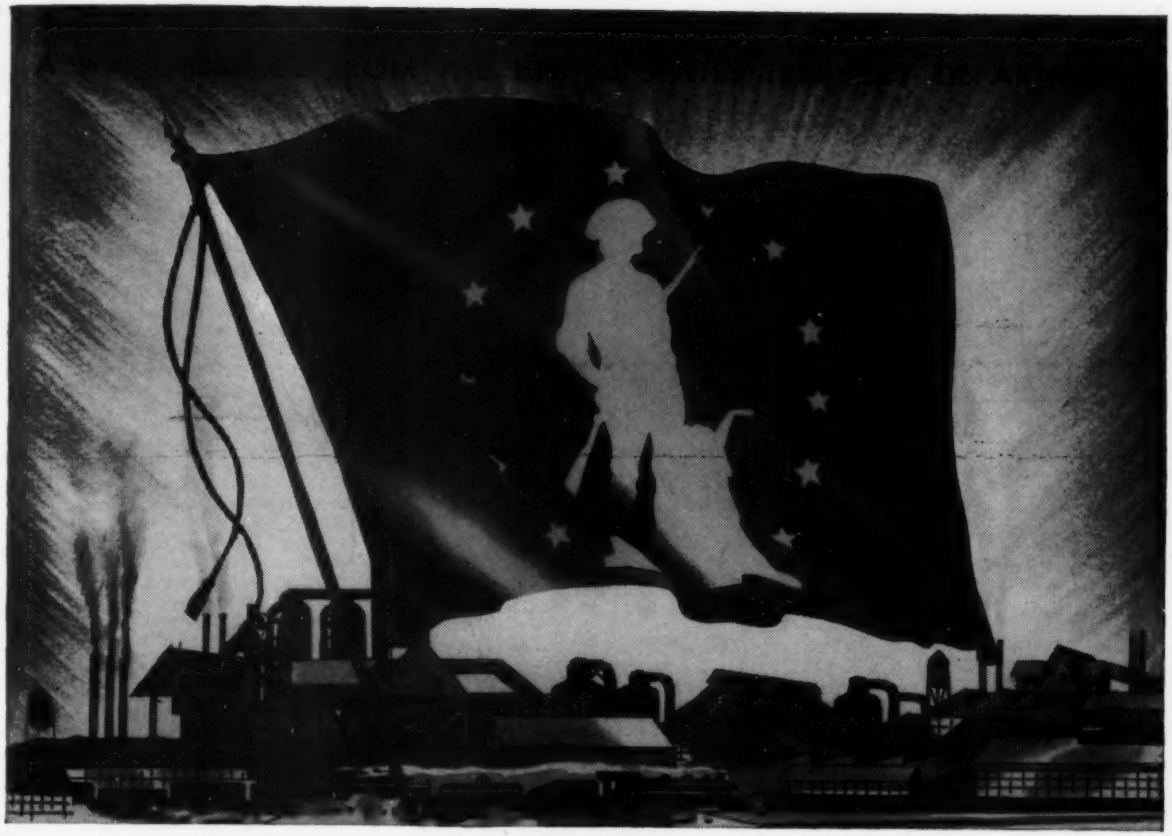
Magician (sawing woman in half): "Now, ladies and gentlemen, after the young lady is severed, her brains will be given to a medical college and the rest will be thrown to the dogs."

Voice from balcony: "Woof, woof, woof."

Her car stalled at the corner and the



"Say, That Looks Like My House . . . I Think I'd Better Rush Home and Check on That!"



Next to the Stars and Stripes . . .

AS PROUD A FLAG AS INDUSTRY CAN FLY

Signifying 90 Percent or More Employee Participation in the Pay-Roll Savings Plan

IT doesn't go into the smoke of battle, but wherever you see this flag you know that it spells Victory for our boys on the fighting fronts. To everyone, it means that the firm which flies it has attained 90 percent or more employee participation in the Pay-Roll Savings Plan . . . that their employees are turning a part of their earnings into tanks and planes and guns *regularly,* every pay day, through the systematic purchase of U. S. War Bonds.

You don't need to be engaged in war production activity to fly this flag. Any patriotic firm can qualify and make a vital contribution to Victory by making the Pay-Roll Savings Plan available to its employees, and by securing 90 percent or more employee participation. Then notify your State Defense Savings Staff Administrator that you have reached the goal. He will tell you how you may obtain your flag.

If your firm has already installed the Pay-Roll Savings Plan, now is the time to increase your efforts: (1) To secure wider participation and reach the 90-percent goal; (2) to encourage employees to increase their allotments until 10 percent or more of your gross pay roll is subscribed for Bonds. "Token" allotments will not win this war any more than "token" resistance will keep our enemies from our shores, our homes. If your firm has yet to install the Plan, remember, TIME IS SHORT.

Write or wire for full facts and literature on installing your Pay-Roll Savings Plan now. Address Treasury Department, Section D, 709 12th St., NW., Washington, D. C.

Make Every Pay Day "Bond Day"

U. S. **WAR Bonds ★ Stamps**

This Space Is a Contribution to Victory by FIRE ENGINEERING — CASE-SHEPPERD-MANN PUB. CORP.

THE "PT" PRINCIPLE IN Fighting Fires!

★ American "PT" or "mosquito" boats have demonstrated the effectiveness of light, mobile equipment handled by limited man-power. Ponderous battleships, with more than a thousand men aboard, are needed only for major engagements. The "PT's" do the work alone a good share of the time.

The LaBour Fire Trailer offers similar effectiveness in fire fighting. A two-man crew is sufficient; the unit is light and easily maneuvered even under difficult conditions; it delivers a hard-hitting stream of 150 GPM, taking water from any brook or pond. And it costs much less, of course, than heavy, big-capacity equipment.

Bulletin 49 contains interesting details. Send for your free copy—today.

THE LABOUR COMPANY, INC.
Elkhart, Indiana, U. S. A.

WAR FARE

Alarms and Discussions Clipped and Culled from the War News of the Day, of Interest to the Fire Service.

Roi B. Woolley

War Briefs Hot Off the Tape

An American-built four-engined Liberator bomber flew 2,000 miles from Newfoundland to Britain in record time of 6 hrs. 40 minutes. This new time of 400 minutes eclipsed by one hour previous best trans-Atlantic flight record. . . . New York City is locating some of its air-raid sirens on El stations—what's left of them. . . . Picked patrols of Russians set fire to forests to smoke out Nazi troops sheltered in the woods. . . . Investigating a light, showing from a school building during blackout in London, it was found it came from room in which air-raid precaution wardens were meeting. . . . Caught as a third offender, smoking a cigar in a war plant where he worked as a cutter on army uniforms, Jacob Wiener, 47, the Bronx (N. Y.) was fined $150 and, when he couldn't pay went to jail for 60 days. At the same time, Magistrate D'Andrea indicated his belief that some of the onus for violating fire regulations belongs to employer. **"Why aren't the bosses of these men brought to court?"** he asked. Why not, we echo? . . . Gibsonburg (O.), population 2,500, asked Government agency to provide some air raid precaution information. The agency sent 30,000 pamphlets. That's being prepared! . . . Osage Indians believe in keeping 'em flying. Brave Eagle, an Osage Indian, introduced his family to a visitor. **"I am Brave Eagle,"** he said. **This is my son, fighting Bird . . . and this is my grandson, Four Motored Bomber."** . . . 452 "Stations" have been selected to house the Fire Department Emergency Auxiliary Corps, throughout New York City, reports papers, quoting John J. McCarthy, Asst. Chief of Department, In Command. . . . Invoking a new ordinance Judge John Flaherty, Jersey City (N. J.), sent Leroy Hughley, 30, negro, to jail for 30 days for smoking on the waterfront. . . . Spokane (Wash.) thinks about the best air-raid alarm is whistle, after a locomotive tooter got stuck and blew for 15 minutes t'other day. Whole city was upset. . . . Chamber of Commerce of State of New York fears sidewalk stands are a danger to air raids. How will newspapers which, with dealers, are accountable for most of the stands in Big City, react to this? . . . Of 1,000 employees working in a six-story brick factory building in Brooklyn (N. Y.), it's said 300 have been fined for smoking in their places of employment during past two years. WHY ISN'T SOMETHING DONE ABOUT IT!

The Newark (N. J.) Defense Council Engineer, calling factory whistles a relic of the horse and buggy days, asked that the Council ban them for duration of war as air raid sirens. . . . Speaking of raid whistles, the big hooter used at Bloomingdale for sounding raid alarms at the "retreat" for the mentally sick, in White Plains (N. Y.), let go one morning and blew, and blew, and blew, while the inmates nearly blew their tops—and

nobody could be found who ordered the air raid alarm sounded.... 9,767 sets of fire-figfihting equipment including shovels, stirrup pumps, hoses, etc., have been distributed to non-fireproof schools in New York City.... New York is to have an Auxiliary Corps fire-fleet; Uh, huh! a division of their own made up of privately owned tugboats and other craft, which they'll man under direction, of course, of seasoned firefighters. . . . "Chief" LaGuardia addressed the New York State Fire Chiefs at their convention in Schenectady, in May. . . . Eleven false alarms in quick succession were attributed by authorities of Montreal (Canada) to "fifth columnists." . . . Over 30 brush and grass fires were extinguished by firemen and wardens during Westchester's "surprise" blackout. . . . Experiments with "artificial fog" supposed to be "dissipated" out of a laundry smokestack flopped, in Brooklyn (N. Y.) due, it's claimed, to the breeze. "Gone with the wind?" . . . Modern "Paul Revere" wardens on horseback will spread alarms in Putnam County (N. Y.) it's said. . . . General Asaburo Kobayashi, commander of home defenses on Japanese front warns his people to look out for air raids. Yeah, Brother, you ain't seen nuthin' yet! . . . Just to add to the "paper work" New York has instituted a new license system whereby all firms and persons in New York who handle explosive materials or ingredients must obtain licenses from agents of N.Y.F.D. . . . Drafting of air raid wardens as best method of making sure of a sufficient number of fire fighters during an actual air raid is suggested by Maj. Gen. O'Ryan, Director, N. Y. State Council of National Defense. . . . Maj. Gen. James Ulio, adjutant general of the army, says he would like to have the CCC enrollees in the (army) service. . . . Portland (Ore.) can be blacked out in 30 seconds, according to newspaper accounts. . . . First air raid wardens' equipment to be distributed by OCD will go to some 40 coastal cities, on both Oceans. . . . Squabble over the New York City bill to compel owners or lessees of structures in New York to install special fire fighting equipment has died down—temporarily. . . . In New Rochelle (N. Y.), registered alien-female was fined $50, given suspended 60-day sentence for deliberately violating local blackout law.

Use of Practice Bombs Prohibited

Because their manufacture calls for the use of scarce materials, including magnesium and metal containers, the production and distribution of incendiary bombs for use as "demonstrators" by civilian groups is prohibited by Limitation Order L-115, issued on May 7 by the War Production Board. Only permitted exceptions are to fill orders authorized in writing by the Army or Navy.

All persons who have manufactured incendiary bombs or similar devices, for demonstration purposes, except for, or under the authorization of, the Army or Navy, since September 1, 1941, must immediately report quantities and current inventories to the W. P. B. on Form PD-449.

In addition to stopping production of incendiary bombs, the order prohibits all persons from selling, purchasing, delivering or accepting them.

OCD Bans Grass Fires as Tragic Waste in Wartime

Grass fires came under the official ban of the Office of Civilian Defense today as a menace to America, especially in war times.

These fires, set by many citizens with the completely mistaken idea they are "cleaning up and killing the weeds," have the opposite effect.

They strip the ground of the mat of grass that is the only thing naturally tending to keep the weeds crowded out. They destroy no w[eed] seeds because the seeds ha[ve] in the ground sinc[e]

cially nitrogen, the most expen[sive] of all to replace.

"How far are you from th[e] ren desert?" is the drama[tic] tion asked by Governme[nt]

The answer is, "Sa[ve] down."

It ta[kes] w[ater]

from The Cleveland Press

INDIAN CLEAR WATER FIRE PUMPS

For many years the INDIAN has been more widely used for fighting grass and brush fires than any other hand extinguisher.

The menace of grass and brush fires demands greater attention this year than usual. If you have an adequate supply of portable, clear water INDIAN FIRE PUMPS you can do the job easily and economically. No hose to lay. No expensive, scarce chemicals to buy. Large 5 gal. tank may be kept filled continually without rust or corrosion. Any water supply serves for refilling. The grass fire season is here. Your community and your country expect you to be PREPARED. *Are you sure the industries, factories and camps in our war effort are completely protected against grass and other outside fires?*

GET READY FOR SUMMER FIRES WITH INDIANS!

GENTLEMEN:
For many years, grass, palmetto and woods fires have been our worry and much loss of good land and property has resulted from them. Three years ago after trying other types of pumps, we ordered two (2) INDIAN FIRE PUMPS and immediately realized that they were the true answer to our grass fire problems.
We are just finishing up our winter grass fire season with no less number of grass fires, but for the FIRST TIME, NO FIRE LOSS FROM THEM. We now extinguish fires with five men that took twenty or more men with the old method of brooms and shovels. We surely have found the INDIAN FIRE PUMPS very valuable.
Very truly yours,
(Signed) L. W. COOK, Fire Chief

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D. B. SMITH & CO., 406 Main St., UTICA, N. Y.

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Hercules Equipment & Rubber Co., 550 Third St., San Francisco, Cal.
Carco-Conwhit Sales Co., 520 S. W. Pine St., Portland, Ore.
The Conwhit Co., Klamath Falls, Ore.
Mill and Mine Supply, Inc., 2700 4th Ave., S., Seattle, Wash.
Roy G. Davis Company, 617 E. 3rd St., Los Angeles, Cal.

For **WORKING SAFETY** *in Smoke and Gas*

MINE SAFETY APPLIANCES CO. PITTSBURGH, PA. EFFICIENCY SERVICE QUALITY

The M·S·A All-Service GAS MASK

●Trustworthy protection when the going is tough —wide-angled vision and unhampered freedom of action for best efficiency—these time-proved features of the M.S.A. All-Service Gas Mask have earned its greatest popularity in Departments throughout the country. U. S. Bureau of Mines approved for safety against all industrial gases—singly or in combinations, including carbon monoxide—built in every detail to meet the demands of the fireman on the job! Write today for Bulletin No. EA-6—let us arrange a demonstration.

For **SAFE RESUSCITATION** *when Emergencies Occur*

THE H-H INHALATOR

Deservedly a part of every progressive Department's equipment, the H-H Inhalator saves lives when time is vital, always on hand for that emergency call. Accepted by the American Medical Association and approved by the Association of Police and Fire Surgeons and other responsible authorities, the H-H Inhalator is the most widely employed device of its type in the world —for safe, effective, gentle and natural treatment of the patient. Descriptive bulletin No. CA-9 sent promptly on request.

MINE SAFETY APPLIANCES CO.
Braddock, Thomas & Meade Sts. - Pittsburgh, Pa.
District Representatives in Principal Cities

WHAT'S BURNING?

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of May, 1942. These figures, compiled from the telegraphic reports, are based on estimates made at the time and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent losses in thousands of dollars.

Month Ending May 31	Loss in Thousands of Dollars
Houlton, Me.—Exchange Hotel destroyed..	65
Dayton, Ohio—Brinkman Engineering Co. plant destroyed	65
Hackettstown, N. J.—Business block housing Peoples' National Bank, Sears Roebuck store and Cook's department store damaged	425
Milledgeville, Ga.—Doctors' building destroyed	80
Savannah, Ga.—Pastime Bowling Alleys and equipment destroyed	50
Chicago, Ill.—Two buildings at Pullman Standard Car Mfg. Company destroyed..	50
Fort Madison, Ia.—John Zerr department store destroyed, Woolworth's and Hiram's Hardware stores damaged	80
Muskegon, Mich.—Baxter Launderers and Dry Cleaners Co. plant and clothing destroyed, adjoining buildings damaged....	100
Chester, Pa.—Chester Hardware Co. building and adjacent bldg. destroyed. Four others damaged	170
Philadelphia, Pa.—Auto parts place and salvage yard destroyed	50
Mendon, Vt.—Bobbin Company mill, power plant and dwelling destroyed	80
Fredericksburg, Va.—W. P. Waitt Lumber and Excelsior Mill destroyed	65
Tollgate, W. Va.—Baltimore & Ohio Railroad tank car train, highway bridge and four buildings destroyed	100
Jamaica, N. Y.—King Kullen food market destroyed	70
Jacksonville, Fla.—Day 'n Night Laundry destroyed	50
Moundsville, Pa.—Pottery building of United Zinc Melting Corporation destroyed	125
McMinnville, Ore.—Courtmarche Hardware Co. store and part of Montgomery Ward store destroyed	60
Pasadena, Cal.—Plant of Young Things Mfg. Co. and apartment house and private home destroyed	50
Arcadia, Fla.—Turner Produce Co. warehouse damaged	125
Oakland, Cal.—Par Soap Co. plant damaged	250
Toole, Utah—Laboratory assay dept., machine and boiler shops destroyed in fire at International Smelting and Refinery Co.	800
Columbus, Ga.—St. Luke's Methodist Church damaged	200
Atlantic City, N. J.—Welsh Paper and Bag Co. warehouse destroyed	50
Palo Alto, Cal.—Charles Lomari & Son Ranch, 3,500 hogs destroyed	75
Cairo, Ill.—Federal Barge Lines "floating terminal" destroyed	80
Minden, Ont.—Britnell's Bakery, Hartle's Superior Store, Eaton's Butcher Shop, Graham's Radio Store, Lott's Cafe, the Echo Printing Office, Lorne Dawson's insurance office, the Post Office, a vacant fruit store and Phil Taylor's garage destroyed	125
Scottsboro, Ala.—W. J. Word lumber yard destroyed	65
Wheaton, Ill.—Woolworth store destroyed..	250
Hawthorne, Nev.—Bar and restaurant of Mike Gallo, Lawrence Masini store and Gallo Hotel destroyed and Economy store damaged	125
Farmingdale, N. Y.—King Kullen Co. retail store and warehouse destroyed	125
Montreal, Que.—Macy Drug Store building destroyed	80
Orange, Tex.—Louisiana Night Spot, a showboat, destroyed	50
Colquitt, Ga.—Business block including equipment of Colquitt Motor Co., Radio Shop, Mayor's office and offices of Dr. W. C. Hays and W. Houston, damaged....	50
Woodlake, Cal.—The Woodlake branch of the W. R. Sapulding Lumber Co. of Visalia destroyed	65
Midway, Tenn.—Claiborne County Junior High School destroyed	70

CLASSIFIED ADVERTISING

Bids Wanted, For Sale and Help Wanted, $5 per inch. Position Wanted, $2.50 per inch.

WANTED

Jobbers to sell our Morning Pride Firecoat, with Wing Freedom Sleeves, Chest Protector, Face Protecting Collar, Waterproof-Wool Wristlets. No Dirt Pockets. Made from Protected Rubber Fabric. Write today. Morning Pride Mfg. Co., 1986 Home Ave., Dayton, Ohio.

FOR SALE

One used portable fire department type Foamite Generator and 800 pounds single powder in 50# cans. Threaded National Standard 2½". In excellent condition. Complete $200.00. Earl A. Brooks, Coatesville, Pa.

Dayton, Ohio—Abandoned hospital building of National Military Home destroyed.... 80

Mt. Ida, Ark.—Lumber mill, sheds and 600,000 ft. of timber of Black Springs Lumber Co. destroyed..... 80

Walpole, Mass.—All but office and one small building of plant of Diamond Match Co., manufacturers of fabricated houses and other items for the Government destroyed, together with large quantity of finished lumber 400

Sombrero Butte, Ariz.—Power plant and shaft of Bunker Hill mine, copper and lead property of Ari-Butte Operating Co. destroyed 65

South Bend, Ind.—Heat treating division of South Bend Tool and Die Co. damaged by fire 65

Brookline, Mass.—Two-story brick mercantile and office building occupied by stores on first floor and doctors', dentists' and real estate offices on second floor, damaged 70

Newark, N. J.—Woodworking shop at Joseph Reiss Lumber Co. destroyed..... 80

Los Angeles, Cal.—Ralph's Grocery Co. destroyed with stock and fixtures..... 60

Chicago, Ill.—Burnside repair shops warehouse of the Illinois Central R. R. damaged 200

Palo Alto, Cal.—Dinah's Shack, restaurant destroyed 50

Eight Killed in Blast

Eight women were killed in a blast which destroyed the fusee plant of the Central Railway Signal Company in Versailles, Pa., on April 30. Ten others were seriously injured.

The plant was engaged in the manufacture of railroad signal torpedoes and flares. Police and firemen found boxes filled with the highly explosive mixture of potash and sulphur, from which the torpedoes are made, still unexploded.

Fire followed the blast, but was quickly extinguished. The torpedo section of the plant was wrecked. Pieces of the steel roof of the plant were blown hundreds of feet.

The tremendous detonation as the plant blew up was heard for miles. Windows for blocks in either direction were blown out.

F. B. I. men sought for evidences of sabotage. The presence of the still unexploded material used in the torpedoes led some of the police at the scene to believe that other explosives had been taken or thrown into the plant. Production of the company was wholly commercial, however, and normally there should have been nothing to draw the attention of possible saboteurs.

The Final INSPECTION

TO INSURE the dependability of WATEROUS Fire Pumps through many years of service, we maintain the modern and well ordered Parts Department shown above. A large stock of replacement parts is behind WATEROUS Fire Pumps, meaning a minimum of delay. The most painstaking inspection, and checking with precision instruments, assures interchangeability of parts. Specify WATEROUS Fire Pumps for *dependability.*

Waterous Dependable Est. 1888

WATEROUS COMPANY • ST. PAUL, MINNESOTA

WATEROUS

CENTRIFUGAL-ROTARY

FIRE PUMPS

AMERICAN-MARSH PUMPS

PORTABLE PUMPING EQUIPMENT *for* FIRE DEPARTMENT SERVICE

PATENTED

TYPE XF

Portable Fire Pump

Delivers 10 to 65 GPM at discharge pressures of 30 to 120 pounds. Self-priming, non-freezing and weighs only 125 pounds. Will handle dirty water without excessive wear.

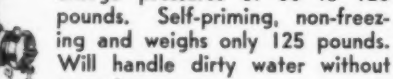
Ask for Bulletin 8122

TYPE X

Booster Tank Filler

Available in sizes from 50 to 300 GPM against pressures up to 30 pounds, which corresponds to a vertical height of over 60 feet. Ideal for pumping out flooded basements, as pump will pass 1/2" solids without clogging. Self-priming and light weight.

Ask for Bulletin 412



PATENTED

Manufactured by the builders of the well-known Barton-American line of truck mounted Fire Pumps.

AMERICAN-MARSH PUMPS, INC.

Battle Creek, Michigan, U. S. A.

"SAFETY FIRST— and ALWAYS"

In Case of Fire

What will your water lines deliver? Better find out before it's too late.

Static pressure may give a false sense of security. But—Dynamic pressure tells the real story.

Let us tell you the whys and wherefores about the—

Victor Hydro Static-Dynamic Pressure Test Pipe.

Made in the U. S. A. by

VICTOR INDUSTRIES

271 NEW YORK AVENUE, HUNTINGTON, N. Y.

"FIRE AND SAFETY" DIVISION

Convention Dates

June 16-19—ILLINOIS FIRE COLLEGE. 18th annual meeting. Univ. of Illinois, Champaign-Urbana, Ill. Secretary, Chief Roy W. Alsip, Champaign, Ill.

June 17—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. 39th annual meeting. Delphos, Ohio. Secretary, J. W. Gardner, Ashland, Ohio.

June 17-20—ARIZONA STATE FIREMEN'S ASSOCIATION. Annual meeting. Prescott, Ariz. Secretary, H. W. Reggin, Prescott, Ariz.

June 22-25—COLORADO STATE FIREMEN'S ASSOCIATION. Annual meeting. Durango, Col. Secretary, G. Turnbull, 215 Boston Bldg., Denver, Colo.

June 23-26—IOWA STATE FIRE SCHOOL. Annual meeting. Ames, Ia. Lindon Murphy, Director.

June 24—IOWA FIRE CHIEFS ASSOCIATION. Annual meeting. Ames, Ia. L. R. Morris, Secretary-Treasurer.

June 25-27—EASTERN ASSOCIATION OF FIRE CHIEFS. Annual meeting. Reading, Pa. Secretary, Chief Charles E. Clark, Box 217, Wayne, Pa.

June 25-27—MONTANA STATE FIREMEN'S ASSOCIATION. Annual Convention. Hamilton, Mont. Secretary, J. A. La Forest, Quartz Street Fire Station, Butte, Mont.

June 25-27—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting. Mechanicsville, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

July 1—TEMISKAMING FIREMEN'S ASSOCIATION. Annual tournament. New Liskeard, Ont. Secretary, F. E. Thompson, Box 686, New Liskeard, Ont.

July 14-15—MICHIGAN FIRE SCHOOL. University of Michigan, Ann Arbor. Director, Dr. C. A. Fisher.

July 15-17—MARITIME FIRE CHIEFS ASSOCIATION. Annual meeting. Kentville, N. S. Secretary, Charles A. Cunningham, St. John, N. B.

July 20-21—WISCONSIN STATE FIRE CHIEFS ASSOCIATION. Annual meeting. Rhinelander, Wis. Secretary, Arthur A. Buss, Wausau, Wis.

July 20-24—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS ASSOCIATION. Annual Meeting. Montreal, Que. Secretary, Chief R. N. O. Harrington, Suite 10, Windsor Hotel, Montreal, Que.

Aug. 11-14—DOMINION ASSOCIATION OF FIRE CHIEFS. Annual meeting. Kitchener, Ont. Secretary, Chief James Armstrong, Kingston, Ont.

Aug. 11-14—VIRGINIA STATE FIREMEN'S ASSOCIATION AND AUXILIARY. Annual meeting. Luray, Va. Secretary, R. B. Barker, Box 893, Newport News, Va.

Aug. 14-15—VERMONT STATE FIREMEN'S ASSOCIATION. Annual meeting. Middlebury, Vt. Secretary, W. H. Adams, Vergennes, Vt.

Aug. 18-19 — FIREMEN'S ASSOCIATION, STATE OF NEW YORK. Annual meeting. Syracuse, N. Y. Fred A. Davis, Fort Edward, N. Y.

Aug. 27-28—CONNECTICUT STATE FIREMEN'S ASSOCIATION. New Haven, Conn. Secretary, D. W. Harford, South Norwalk, Conn.

Aug. 31-Sept. 5—PENNSYLVANIA FIREMEN'S TRAINING CONFERENCE. Annual meeting. Pennsylvania State College, State College, Pa. Secretary, Charles E. Clark, Box 217, Wayne.

September—NEW HAMPSHIRE STATE FIREMEN'S ASSOCIATION. Annual meeting. Meeting place to be decided upon. Secretary, Aubrey G. Robinson, Manchester, N. H.

Sept. 8-11—WESTERN PENNSYLVANIA FIREMEN'S TRAINING INSTITUTE. Annual meeting. California State Teachers' College, California, Pa. Secretary, Joseph Huscroft, North Charleroi, Pa.

Sept. 9-11—TENNESSEE FIREMEN'S ASSOCIATION. 12th annual meeting. Nashville, Tenn. Secretary, Joe J. Martin, Nashville.

Sept. 15-16—IOWA FIREMEN'S ASSOCIATION. Annual meeting. Tipton, Ia. Secretary, H. C. Reinholdt, Manning, Ia.

Sept. 18-19—NEW JERSEY STATE FIREMEN'S ASSOCIATION. Annual meeting. Meeting place to be decided upon. Secretary, Evan F. Benners, Room 602, 24 Brandford Place, Newark, N. J.

Sept. 21-22—TEMISKAMING FIREMEN'S ASSOCIATION. Annual meeting. New Liskeard, Ont. Secretary, F. E. Thompson, Box 686, New Liskeard, Ont.

Sept. 21-24—CALIFORNIA STATE FIREMEN'S ASSOCIATION. Annual meeting. Fresno, Cal. Secretary, Harry E. Strasser, 2046 Oregon Avenue, Long Beach, Cal.

October — ARKANSAS STATE FIREMEN'S ASSOCIATION. Annual meeting. Fayetteville, Ark. Secretary, H. D. Compton, Central Fire Station, Little Rock, Ark.

Oct. 5-8—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION, INC. 47th annual meeting. Atlantic City, N. J. Secretary, Irvin Shulsinger, 8 East 41st St., New York.

Oct. 6-8—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. Annual meeting. Allentown, Pa. Secretary, Charles E. Clark, Wayne, Pa.

Oct. 13-15—ILLINOIS FIREMEN'S ASSOCIATION. 55th annual meeting. Springfield, Ill. Secretary, Chief Roy W. Alsip, Champaign.

Three-Alarm Fire Destroys Large Rooming House

A spectacular fire early Sunday morning, March 1st swept through a large three story brick rooming house in the Shadyside residential section of Pittsburgh, Pa., completely burning it out and spreading to a large private home, which too was badly damaged before the flames were brought under control and extinguished by ten fire companies called on three alarms.

The fire, which originated from some unknown cause in the front room of the first floor apartment, from all indications, had a good start, as a result of a delayed alarm, when the first firemen arrived.

When Engine Company No. 28 arrived on the scene, in answer to a still alarm at 3:29 A.M., the flames were bursting out of all the windows and doors from the first to the third floors and had already spread across a four foot areaway to the private home.

Captain Patrick Barrett of Engine Company No. 28, immediately upon his arrival, sent in the first alarm from the street box, Station 725, at 3:33 A.M., and quickly followed it with the second at 3:34 and the third at 3:40 A.M.

The three alarm assignment brought two 1,000 gallon pumpers, six 750 gallon pumpers, two 75-foot aerial trucks and a manual force of sixty firemen.

In extinguishing the fire, the firemen used fire pumper streams and three hydrant streams, with 4,350 feet of 2½-inch hose in service. Other equipment used were 216 feet of ladders and twelve salvage covers.

All occupants of the burning rooming house escaped to the street in safety before the arrival of the firemen, except a Mr. and Mrs. William Dunbar and their twenty months old child who were trapped by the smoke and flames in their third floor or attic apartment and forced out through the front window onto a wide cornice and gutter, where they were standing when Engine Company No. 28 arrived and made the rescue.

WILLIAM E. PATTERSON.

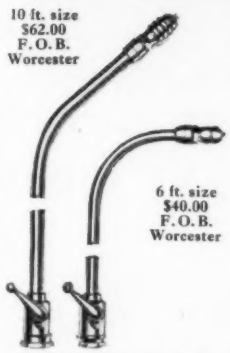
April Fire Loss

Fire losses in the United States during April were $27,960,000, according to the estimate given out by the National Board of Fire Underwriters. These estimated losses, under fire insurance policies are on an incurred basis, including an allowance for unreported and uninsured losses.

This loss total of $27,960,000 in April compares with $29,330,000 in the same month last year, a drop of $1,370,000 or five per cent. It is $2,545,000 or eight per cent less than the aggregate for March, 1942, about the usual seasonal decline for this time of year.

Running *Oil Fire wiped out...* *with* ROCKWOOD WaterFOG

5 minutes to wipe up this dangerous running oil fire with WaterFOG



10 ft. size $62.00 F. O. B. Worcester

6 ft. size $40.00 F. O. B. Worcester

Rockwood WaterFOG Applicators with ball-type shut-off. Fit existing hose lines.

Type N-20
¾" size $15.00
1" size $15.00
1½" size $25.00
2½" size $35.00
F. O. B. Worcester

Comes in four sizes to fit existing hose lines. Projects a larger WaterFOG pattern greater distance by a new method.

Rockwood WaterFOG Applicators

You will find many uses for the handy Rockwood WaterFOG Applicators. Use them singly or in multiples of two or three to quickly clean up large area fires of flammable liquids such as fuel oil, kerosene, mineral spirits, oil bombs, etc. Protect storage tanks from ignition by radiant heat. WaterFOG will keep exposed materials cooled below their ignition point. Or use the Applicators to fight fires in confined areas such as cellars. Poke the Applicator thru a window or other opening and watch smoke and flame disappear as WaterFOG cleans up. WaterFOG works just as effectively on ordinary combustibles.

On incendiary bombs of the magnesium type — Rockwood WaterFOG *safely* accelerates the burning, causing the bomb to quickly burn itself out. No exploding particles such as a solid stream would create. The wide coverage of WaterFOG puts out the fire started by the bomb and wets down the surrounding area, preventing fire spread.

Rockwood N-20 WaterFOG Nozzles

You can use WaterFOG on large fires impossible to extinguish with the low range of other types of fog or spray nozzles. You have fire fighting distance of 50 feet at 100 lbs. pressure with the 2½ inch size of the Rockwood type N-20. This is possible by the use of an advanced new method developed by the Rockwood research engineers known as the *internal impingement* method of generating and projecting fog. *Low* velocity WaterFOG particles with their greater extinguishing action are projected right into the heart of the fire by means of the proper amount of *high* velocity WaterFOG induced into the low velocity pattern. For use on incendiary bombs, flammable liquid, and high voltage electrical equipment fires.

Order from your regular fire equipment distributor

ROCKWOOD SPRINKLER CO.

Specialists for 36 years in the Manufacturing and Installation of Fire Protection Equipment

54 HARLOW STREET WORCESTER, MASS.

IT'S A TOSS UP—WATER OR FIRE DAMAGE

Which might shut you down faster—a roaring fire or a deluge of water from fire hoses? It's any man's guess. But it's a fact that C-O-TWO* extinguishes fire of highly inflammable liquids; in electrical equipment; storage vaults or enclosures in split seconds without damage to materials or equipment, and there will be no mopping-up afterwards and no delays to production.

IT'S SAFER because IT'S FASTER

The extinguishing agent of C-O-TWO is carbon dioxide gas, one of the fastest fire extinguishing agents ever discovered. There are C-O-TWO portables, hose units, automatic and manual systems for special hazards to give your plant maximum fire protection. Write for information.

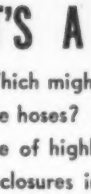
Extinguishing a transformer fire with C-O-TWO Portable Unit.

*C-O-TWO is a registered trademark. To be safe, specify C-O-TWO and this company's name when ordering.

C-O-TWO FIRE EQUIPMENT CO.

NEWARK, NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada



EDDY
Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience goes into their manufacture and they embody valuable and exclusive features.

Write for the FACTS.

EDDY VALVE CO., Waterford, N.Y.

Rhode Island's Worst Disaster Since the Hurricane

The worst forest fire that Rhode Island has yet experienced swept over better than fifty square miles of brush and woodland in the southwestern part of the state. Starting late in the afternoon of May 1, it was finally brought under control four days later.

The fire, which was of an incendiary nature, was burning in as many as fifteen different places at once.

It broke out in several places around Coventry and rose to such a height that by the morning of the next day there were about 1,000 men fighting the fire and an appeal was made by the Governor for all available men to volunteer their services. At noon the Governor had declared martial law for the area and the State Guard was posted on all roads leading into the area. There were close to 3,000 engaged in the battle, including a large detachment of soldiers from Fort Devens and a contingent of sailors from the Quonset Naval Air Station. Firemen and apparatus from Westerly, Warwick, Bristol, Norwood, Coventry, Greene, North Providence, East Providence, Pawtucket, Cranston and Providence were helping to combat the blaze.

In the path of the flames were many farms, the buildings on which were destroyed when fire fighters were unable to reach them because of the flames. Also in the area was about 1,500,000 board feet of lumber, salvage lumber from the hurricane in 1938. When the flames were finally conquered $3,000,000 worth of damage had been done. The fire had destroyed well over a hundred buildings and had nearly consumed the Town of Greene.

The arsonist, who set the fire, was finally apprehended by Connecticut and Rhode Island State Police. He was Edward LaCasse, 30, of Plainfield, Conn., a volunteer fireman. He was employed as a section gang foreman by the New York, New Haven and Hartford Railroad.

The police were able to catch him only because of the information given them by a young married couple that were riding along a back road in Moosup, Conn. A rather peculiar chain of events led to his arrest. The couple were driving along the road when they saw smoke in the woods ahead. They investigated and saw a stocky, swarthy man standing beside a blue sedan. They drove to the home of Chief Irving Barber of the Moosup Volunteer Fire Department and gave him the registration number and description of the man. Chief Barber called the Connecticut State Police and asked them to meet him at the fire. The Chief then hurried off to the fire house. When he arrived, the blue sedan and a man answering the description were there. The man volunteered to go with the truck to the fire. When he arrived at the fire, he stood around and seemed interested, but didn't do any work. The State Police picked him up and took him to the barracks for questioning. He finally confessed to the crime and also to eight other fires that occurred in buildings and woodlands in the last two years. He faces a minimum of twenty years each in Connecticut and when they are through with him, Rhode Island wants him for four counts.

ARTHUR SELLECK.

Apparatus Needs of Cities

(*Continued from page 345*)

(B) 1 jr. aerial truck; 5 500-gal. pumpers; 1,500 ft. 2½-in. hose; 5,000 ft. 1½-in. hose; 20 all-service gas masks; 4 portable generators with lamps; 2 cutting torches; 4 oxygen masks
(C) None

The Dalles, Ore.
(A) 1,000 ft. 2½-in. hose; 200 ft. 1½-in. hose; 6 helmets; 1 5-h.p. siren
(B) 1 65-ft. aerial ladder
(C) Not reported

Ashland, Penna.
(A) 1 triple comb. truck; 500 ft. 2½-in. hose
(B) 1 foam generator; portable lighting system; hose; tools; helmets; gas masks; oxygen breathing apparatus; lighting equip.; fog nozzles; extinguishers
(C) Not known

Blairsville, Penna.
(A) 1,000 ft. 2½-in. hose; 4 gas masks; 2 shut-off nozzles; 1 hose clamp; 6 salvage covers; spanners; plug wrenches
(B) 2½-in. hose; 1½-in. hose; vapor nozzles; 2 500-gal. trailer pumps
(C) 750 ft. 2½-in. hose; 600 ft. 1½-in. hose; vapor nozzles; 1 500-gal. trailer pumper

Corry, Penna.
(A) Hook and ladder
(B) 500-gal. pumper
(C) 500-gal. pumper

Danville, Penna.
(A) 750-gal. comb. pumper
(B) 2 pumpers; ambulance; salvage truck; coats; hose; inhalator
(C) Hose; coats

Downingtown, Penna.
(A) None
(B) 2 triple comb. pumpers; 3,000 ft. 2½-in. hose; 1,000 ft. 1½-in. hose
(C) None

Dupont, Penna.
(A) 100 ft. hose; spot light
(B) Spray nozzle; 2 chemical trucks; stretcher; first aid kit; gas mask
(C) Not known

Emaus, Penna.
(A) 500 ft. hose
(B) 1 comb. service truck; 1 squad wagon; 3,000 ft. hose; 24 gas masks; 8 portable pumps
(C) None

Grove City, Penna.
(A) 800 ft. 2½-in. hose
(B) 1 pumper and hose unit; 1 comb. ladder and pumping unit
(C) None

Highland Park, Penna.
(A) 1 750-gal. pumper; 1,000 ft. 2½-in. hose; 500 ft. 1½-in. hose; 1 deluge set
(B) 5 auxiliary or portable pumps with hose; playpipes; tools
(C) Not known

Jersey Shore, Penna.
(A) 6 knapsack pumps; 400 ft. 2½-in. hose; 200 ft. 1½-in. hose; 1 2½-in. fog nozzle
(B) 1 750-gal. pump; 500 ft. 2½-in. hose
(C) 400 ft. 2½-in. hose; 150 ft. 1½-in. hose

Johnsonburg, Penna.
(A) 1 500-gal. pumper
(B) 1,000 ft. 2½-in. hose; 500 ft. 1½-in. hose; 1 set of floodlights
(C) 1,500 ft. hose; 1 set of floodlights

Kittanning, Penna.
(A) 1 85-ft. aerial truck with 100 gal. booster tank and pump; 1,000 ft. 1½-in. hose; several nozzles.
(B) 2 or 3 trailer pumps; 1,500 ft. 1½-in. hose; 1,500 ft. 2½-in. hose; equip. for pickup trucks
(C) 1½-in. hose; 2½-in. hose; knapsack pumps; jiffy hose.

Lansford, Penna.
(A) None
(B) None
(C) None

Lehighton, Penna.
(A) None
(B) 3 pumpers with booster attachments; 3,500 ft. 2½-in. hose; 1,000 ft. 1-in. booster hose.
(C) 1 pumper; 500 ft. 2½-in. hose

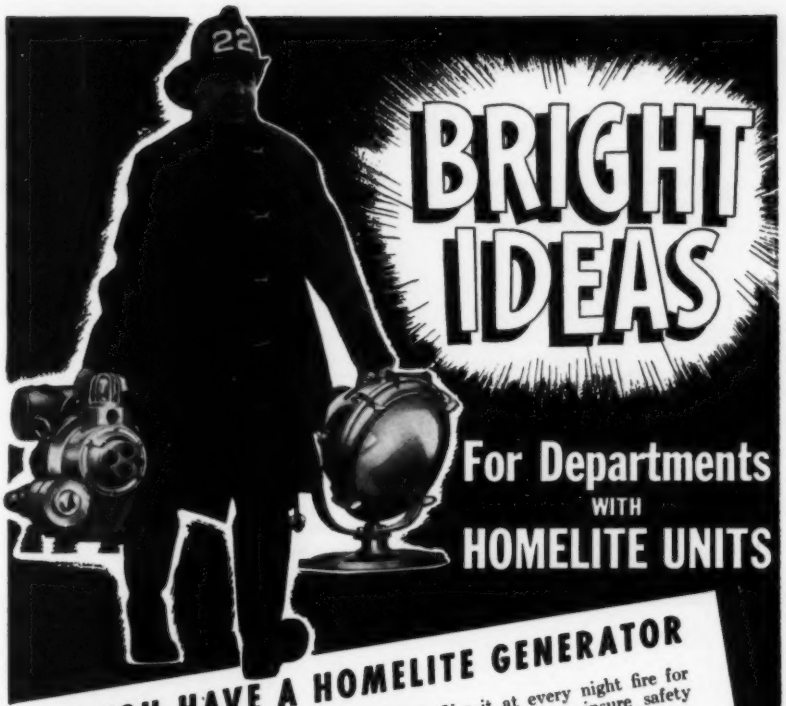
Mechanicsburg, Penna.
(A) None
(B) 3 pumpers with 300-gal. booster tanks; 3,000 ft. hose; boots, coats; necessary equip. for apparatus
(C) 1 piece of apparatus; 4 5-gal. hand pumps

Middletown, Penna.
(A) 1 500-gal. pumper fully equipped
(B) 2 or 3 portable pumps; 2,000 ft. hose
(C) Hose

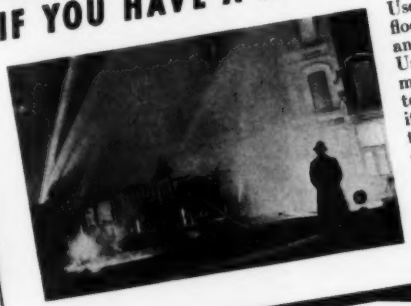
Midland, Penna.
(A) None
(B) 1 750-gal. pumper
(C) None

Nazareth, Penna.
(A) 1 quad truck; 1,000 ft. 2½-in. hose
(B) 2 pumps; 3,000 ft. 2½-in. hose
(C) None

North Charleroi, Penna.
(A) 1 fog nozzle; 1 shut-off
(B) 1,000 ft. 2½-in. hose; 6 stretchers; 2 all-service masks; first aid supplies; 5 hand pumps;



IF YOU HAVE A HOMELITE GENERATOR



Use it at every night fire for floodlighting to insure safety and most efficient operations. Use it as stand-by power for maintaining alarm signal systems during emergencies. Make it available for lighting hospitals, airports, public buildings, defense plants or emergency centers during power failures. Use it at night drownings or accidents. Let it do its part in your community's civil defense programs.

IF YOU HAVE A HOMELITE PUMP

Use it for dewatering cellars. It pumps fast—15,000 gallons per hour. It increases salvage and does not tie up trucks after the fire is out. Use it also for fighting field or forest fires in places where water can be readily pumped from a stream, pond, well or lake.

HOW TO KEEP THEM RUNNING BETTER & LONGER

A minimum of care keeps Homelite Pumps and Generators ready for every emergency. Keep spark plugs in good condition. Keep engine free of carbon. Keep carburetor set on the lean side. Don't use the choke for a throttle. Mix ½ to ¾ pt. of oil with each gallon of gasoline used.

Send for these booklets Free service manuals will show you how to keep your Homelites in good condition. Write—specifying the model and serial numbers of your Homelites—for copies.

HOMELITE CORPORATION
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FIRE FIGHTERS NEED BEST IN PROTECTION

Little do firemen know, when the alarm sounds, how difficult will be their fire fighting problems. Their gas masks must be available at all times, and in good condition, to permit them to enter smoke-filled areas, and to cope with all types of gases, smokes and fumes.

The Acme All Purpose type FD Gas Mask provides protection against Carbon Monoxide (CO), Toxic Smokes, Illuminating Gas, All Individual or Combination of Gases. Each mask is equipped with wide, flat FULL VISION Lenses which enable the wearer to have non-distorted vision upwards, downwards, and to either side.

Acme Gas Masks are easily adjusted to the head, eliminating pressure points which formerly have caused headaches and physical distress.

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The Acme Doughboy type Helmet (shown on right) is made of Alloy Steel and provides excellent head protection to the wearer. The cushioned headband relieves shock, fits the head firmly and comfortably, and provides the wearer with the ultimate in head protection. Easily adjusted to head size, with chin straps. It weighs only 1¾ lbs.

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500 ft. 1½-in. hose; floodlight system; hand lights
(C) Hose

Palmerton, Penna.
(A) None
(B) 2 750-gal. pumpers; 8 400-gal. trailer pumps; 1 50-ft. ladder truck; 4 hose trucks; 3 service trucks
(C) None

Renovo, Penna.
(A) 800 ft. 2½-in. hose; 400 ft. 1½-in. hose; hose expander; 24 helmets; 4 hand lanterns; first aid supplies; rope; 3 100-gal. booster tanks; 2 water thiefs; 4 1½-in. nozzles
(B) Pumper
(C) None

Rochester, Penna.
(A) 1 1,000-gal. pumper; 2 fog nozzles; 3 5-gal. hand pumps
(B) Not reported
(C) None

St. Marys, Penna.
(A) 500-gal. pumper to be delivered; portable elec. saw; 1 2½-in. nozzle (fog with play pipe); 1 2½-in. shut-off nozzle with tips; 2 1½-in. nozzles; 1 2½-in. wye; 1 1½-in. wye; 1 water thief; 1 1-in. nozzle
(B) Pumper; 1,200 ft. 2½-in. hose; 300 ft. 1½-in. hose
(C) Hose

Scottdale, Penna.
(A) Pumper on order; fog nozzle; adapters; water thief; 2½-in. hose; helmets; rubber coats and boots
(B) Addl. fog nozzles and apparatus
(C) None

Tyrone, Penna.
(A) 2 pumpers
(B) Hose; smoke and gas masks; small portable pumps
(C) Hose

West Hazleton, Penna.
(A) None
(B) 1,500 ft. 2½-in. hose; 500 ft. 1½-in. hose; 1 2½-in. fog or spray nozzle; 1 1½-in. fog or spray nozzle; 6 smoke or gas masks; 1 siamese connection
(C) None

West Pittston, Penna.
(A) Quad. truck; 500 ft. fire hose; 2 fog nozzles
(B) Fire hose; floodlighting outfit; foam generator; smoke masks
(C) Fire hose; gas masks

Wilmerding, Penna.
(A) 1 ambulance; resuscitator; 2 asbestos suits; first aid equipment; 2 1-hr. oxygen masks; 300 ft. 2½-in. hose
(B) 2½-in. hose; 2 oxygen masks; 3 fog nozzles; 1 cellar nozzle; 2 life belts and hooks; 1 1,000-gal. pump with 500 gal. booster; 65-ft. aerial truck.
(C) 700 ft. 2½-in. hose; 3 fog nozzles; 2 oxygen masks; 2 life belts

Warren, R. I.
(A) 2,000 ft. 2½-in. hose; 1,000 ft. 1½-in. hose; 1 2½-in. fog nozzles
(B) 6 portable pumps; 2,000 ft. 2½-in. hose; 2,000 ft. 1½-in. hose; 3 2½-in. fog nozzles.
(C) None

Gaffney, S. C.
(A) None
(B) Small truck with pump; 6 knapsack pumps
(C) Not known

Yankton, S. D.
(A) 500 ft. 2½-in. hose
(B) 1,000 ft. 2½-in. hose; 1,000 ft. 1½-in. hose; 2 750-gal. triple comb. pumpers with 1,000 ft. 2½-in. hose for each; 1 65-ft. aerial truck
(C) 500 ft. 2½-in. hose

Alcoa, Tenn.
(A) None
(B) 2 comb. chemical hose and ladder trucks
(C) None

Bonham, Tex.
(A) None
(B) 1 500-gal. pumper
(C) 1 500-gal. pumper

Breckenridge, Tex.
(A) None
(B) 1 or 2 booster wagons with 1 or 2 booster lines and fog nozzles; 3 fog nozzles; 1,000 ft. 2½-in. hose; pump cans and equip. to fight incendiary bomb fires
(C) Doubtful if any will be purchased

Garland, Tex.
(A) 500 ft. 2½-in. hose; 4 extinguishers
(B) 750-gal. pumper and 1,200 ft. 2½-in. hose
(C) Pumper and hose

Goose Creek, Tex.
(A) None
(B) Booster pump with 300 ft. 1½-in. hose and 200 ft. of 1-in. hose; 2 750-gal. pumpers; 1 addl. fire station; 4 paid men; 2 foam generators; 50 50-lb. cans of foam powder; 3,000 ft. 2½-in. hose; 600 ft. 1½-in. hose; 14 hand pumps; 2 40-lb. CO_2 extinguishers; 3 2½-gal. foam extinguishers; 6 all-service masks; 1 fresh air mask; 2 inhalators; addition to old station
(C) Possibly 1 750-gal. pumper

Hillsboro, Tex.
(A) None
(B) Recondition 750-gal. pumper
(C) Not known

Luling, Tex.
(A) None
(B) Portable pumping units; hose and nozzles; ladders; pump cans; gas masks; training masks for civilians

(C) Pump cans; gas masks (all-purpose)

McKinney, Tex.
(A) Comb. pumper and booster; CO_2 extinguisher; 1 hand pump
(B) Portable light plant; 1,000 ft. of 2½-in. hose; 500 ft. 1½-in. hose; gas masks; portable trailer pumps
(C) Hose and light plant

Navasota, Tex.
(A) 500-gal. pumper with 200 gal. booster tank
(B) 1,000 ft. 2½-in. hose
(C) Not known

New Braunfels, Tex.
(A) None
(B) 300-gal. booster with 500-gal. pump
(C) Not known

Orange, Tex.
(A) None
(B) 1 65-ft. aerial service truck; 2 750-gal. pumpers; 1 light truck
(C) 1 65-ft. aerial service truck

Plainview, Tex.
(A) 300 ft. 2½-in. hose
(B) 1 pumper; 1,200 ft. 2½-in. hose; 300 ft. 1½-in. hose; 15 gas masks; 3 2½-in. spray nozzles; 2 1½-in. spray nozzles; 5 asbestos fire suits; 5 prs. asbestos gloves; 30 shovels
(C) Possibly 300 ft. 2½-in. hose

Taylor, Tex.
(A) None
(B) 500-gal. booster truck and fire hose
(C) Hose

St. Albans, Vt.
(A) None
(B) 500-gal. pumper
(C) None

Bristol, Va.
(A) 400 ft. 1½-in. hose
(B) Portable floodlighting set; deluge nozzle; 500 ft. 2½-in. hose; overhaul 1,000-gal. pumper.
(C) Not reported

Clifton Forge, Va.
(A) 600-gal. trailer pump; 400 ft. 2½-in. hose; 700 ft. 1½-in. hose; 2 1½-in. nozzles; 1 2-in. nozzle; 1 siamese coupling; 6 gas masks; 18 rubber coats
(B) Trailer pumps; 4,000 ft. 2½-in. hose; 20 ft. suction hose; 2,000 ft. 1½-in. hose; 100 gas masks; 36 rubber coats; 3 doz. water fire extinguishers; 2 doz. stirrup pumps
(C) 500 ft. fire hose; 6 pump cans

Pulaski, Va.
(A) 750-gal. pumper with 65-ft. aerial and booster; 500 ft. hose
(B) Pumper; gas masks; helmets; addl. men.
(C) None

Centralia, Wash.
(A) All-service gas masks; stirrup pumps; clothing
(B) Aerial ladder truck; portable pumps; hose
(C) Hose; portable pumping unit

Port Angeles, Wash.
(A) 1 600-gal. pumper replacement; 2,500 ft. hose
(B) 4 500-gal. pumpers; 5,000 ft. 2½-in. hose; 2,000 ft. 1½-in. hose; 600 ft. booster hose; 8 2½-in. nozzles; 12 1½-in. nozzles; 4 booster nozzles; 12 fire axes; 18 salvage covers; 12 pump cans; 12 stirrup pumps
(C) None

Puyallup, Wash.
(A) 1,000 ft. 2½-in. hose; 400 ft. 1½-in. hose; 40 ft. alum. extension ladder; 7½ h.p. siren; 750-gal. pumper
(B) 2 300-gal. aux. pumps; 2,000 ft. 2½-in. hose; 2,000 ft. 1½-in. hose
(C) None

Elkins, W. Va.
(A) 1 500-gal. pumper
(B) 1 65-ft. aerial ladder truck
(C) None

Princeton, W. Va.
(A) None
(B) 3 500-gal. pumpers; 2 750-gal. pumpers; 2 75-ft. aerial ladder trucks with various size ladders
(C) Not reported

Williamson, W. Va.
(A) 1,000 ft. 2½-in. hose; 300 ft. 1½-in. hose; 2 nozzles; 1 2½-in. shut-off nozzle.
(B) 10 trailer pumps; 10,000 ft. hose; nozzles
(C) None

De Pere, Wis.
(A) Salvage covers; 2½-in. fire hose; cellar nozzles; ½-in. leader line
(B) Foam generator; alarm system; fog nozzles
(C) Foam generator; fog nozzle

Menomonie, Wis.
(A) Hose
(B) 500-gal. pumper with 65-ft. aerial ladder, or modernize present truck
(C) None

Merrill, Wis.
(A) None
(B) 2 750-gal. pumpers with ladders; 500 ft. 2½-in. hose
(C) 1 750-gal. quad truck; 1 750-gal. pumper with ladders

Portage, Wis.
(A) 1 500-gal. rural service engine; 1 hose wagon with deck gun; 1 soft suction; portable floodlight
(B) 1 60-ft. aerial ladder; 1,000 ft. 2½-in. hose; 200 ft. 1½-in. hose plus leader line wye; 2 nozzles; fog nozzle equip.; fresh air or oxygen mask; trailer pumper; various valves and fittings; public alarm installation; drill tower

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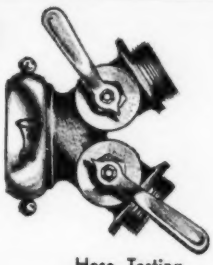
MORE PRODUCTION
LESS DESTRUCTION
through
ADEQUATE FIRE DEFENSE



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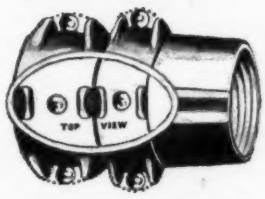

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Hose Testing Units
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Recognized as standard in their high quality and dependability of service since 1921. The cover of the 10" gong illustrated can be removed for inspection without disturbing the mechanism. These gongs are strongly built and light in weight.

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THE VERSATILE *Emergency* TOOL

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FIREMAN'S CUTTER

Here is a high-speed, heavy-duty "hot" line cutter—with important secondary uses.

Has Cohardite insulation moulded onto the handles—a safety measure against abrasion and puncture—each pair of handles thoroughly tested before shipment to withstand 20,000 volts. Jaws easily cut ½" solid copper wire and open out to 1⅛" to admit heavily insulated wire. Its special search hook helps find and guide wires into the cutting jaws in smoke and darkness.

In fire-fighting, wreckage clearance and rescue work, this tool is quick, efficient and dependable.

Tested by many years of service in municipal fire departments throughout the country, the HKP Fireman's Cutter is specifically designed to fulfill the requirements of Civilian Defense. It is a worthy member of the famous line of Porter Metal Cutters.

SEND FOR **FREE** DESCRIPTIVE FOLDER

It's free, of course.

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SAFETY COATS

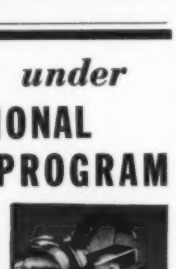
★ Star of the industry! Midwestern's famous life protecting yellow striped coat—far more easily seen when visibility is poor. Still available, although Midwestern is equipping the fire fighters of the war. Write,

MIDWESTERN

Manufacturing Co., Mackinaw, Ill.

A **MUST** *under the* **NATIONAL DEFENSE PROGRAM**

the WHEAT SPOT-LIGHT



The strain of National Defense production puts a greater strain upon the Fire Departments that must protect industry. Equipment built for endurance as well as efficient service is the by-word of today's purchases in the fire service equipment field.

The Wheat Spotlight with its 25,000 candlepower light and its 1,000-hour endurance battery is therefore a MUST for your Department. Its light weight and convenient shoulder strap allow the operator to have both hands free for other firemanic duties. It has either Spot or Flood reflectors and is invaluable to all departments, large or small.

Write for full information.

KOEHLER MFG. CO.

MARLBORO, MASS.

(C) Probably 500 ft. hose; public alarm installation

Rhinelander, Wis.
(A) None
(B) 2 500-gal. pumpers; 4 hose and chemical trucks with ladders; 1 65-ft. aerial truck
(C) None

Stoughton, Wis.
(A) 800 ft. 2½-in. d. j. hose; 2 ¾-in. fog nozzles for booster lines
(B) Salvage covers
(C) Salvage covers

Gasoline for Volunteer Firemen

The County Fire Commission of Nassau County, N. Y., has received assurances of the Nassau County Rationing Board that every fireman will receive all of the gasoline necessary for his uninterrupted service.

It is not the intention of the regulations that any voluntary civic worker shall be expected to use gasoline rationed to him for personal and business purposes, in the performance of his civic duties. Nor is it intended that there shall be any shortage which will seriously affect such service.

On the other hand, it must, of course, be carefully insured that gasoline issued specifically for the fire service will not be used for any other purpose.

The Chairmen of the respective Battalion Districts are supplied with application forms for supplementary gasoline supplies. These forms must be completed, signed and notarized by each fireman stating his requirements to cover gasoline actually and necessarily used for the fire service- including responses to fires or fire stations and to meetings, drills, training schools, etc. This application will be filed with and receive reasonable and favorable consideration by the Rationing Board at Mineola. It must, however, be accompanied by a letter from the Chief of the department of which he is a member, or such Chief must have filed with the Nationing Board a certified list of those who are actually active firemen who really perform service as such.

Fire Threatens Unfinished Ship

FBI agents under Nat Peiper, head of the San Francisco and Northern California Federal Bureau of Investigation, began a probe to determine the cause of a fire which threatened a Navy auxiliary ship under construction at the South San Francisco yards of the Western Pipe and Steel Co. on April 26.

Fire was discovered shortly after 8 p.m. by a guard who immediately turned in an alarm. The plant fire brigade, South San Francisco companies and two engine companies and a truck from San Francisco responded.

The fire was quickly extinguished and damage was confined to blistered paint on the ship and burned scaffolding on the ways. Several fire fighters suffered slight burns as they battled the fire.

A strange thing about the blaze was that it broke out on the water side of the vessel's scaffolding, threatening another auxiliary ship under construction on the way next adjacent.

FBI agents here said they are working with plant guards on the possibility of sabotage.

BOB GREENOCK.

Oldest Volunteers

In answer to our request in the April issue for the name of the oldest volunteer fireman or fire chief, the following replies have been received.

Of the names received, Chief Henry J. Rosenstihl of the Union Springs, Ala., Fire Department is the oldest. He joined the fire department on August 7, 1879. His father bought the fire piece of apparatus for the city, loaning the money for the purchase of a hand pumper of which he was pipeman. Thanks for this item are also due to Mr. Roy S. Timmerman, Branch Manager of the Eureka Fire Hose Division of United States Rubber Company, Atlanta, Ga.

Mr. George West, Financial Secretary of the J. N. Ring Fire Company of Rensselaer, N. Y., reports that the company has an active member who joined it on October 7, 1879, but two months after Chief Rosenstihl.

Chief W. L. Philips of Sac City, Ia., has sent us the name of C. E. Waterson who has been a member of the fire department for fifty-eight years, having joined in 1884.

Mr. E. J. Stewart, Chief Engineer of the Kansas Inspection Bureau, Topeka, Kans., gives us the following information:

"J. M. Osborn is a charter member of the Clifton, Kans., Volunteer Fire Department which was organized in 1894. He first served two years as assistant chief and then was elected treasurer and has continued in that capacity.

"Chief J. H. Hammitt has been a member of the St. John Volunteer Fire Department for more than a half century and is serving his forty-second consecutive year as Chief. He joined the department fifty-three years ago. He is Past President of the Kansas State Firemen's Association.

"Four members of the Minneapolis, Kans., Volunteer Fire Department have served thirty years or more. They are Otto Behendt, Fred Chase, Harry Miller and Newton Warren.

"Jack Wolever, Chief of the Fredonia Volunteer Fire Department has been a member of the department for forty years.

"Chief C. O. (Doc) Pingrey is serving his forty-fourth year as a member of the Neodesha, Kans., Fire Department. He has a record of thirty-four years as Chief."

John E. McCarthy, Secretary of the Burlington, Wis., Fire Department has sent us the name of Assistant Chief Joseph P. Rueter, who at the age of seventy, is still active in firemen's affairs. He joined the department in August, 1890. He is called "Birch" by the entire department.

Nelson E. Mott of Windsor, N. Y., has sent the name of B. W. Russell who has been a member of Hose Company No. 2 for forty-two years. He is a charter member of that company and is President of it.

Chief L. W. Brown of Rockville, Ind., writes that he was appointed Chief in December, 1906, organized the department in that year and has been its Chief ever since. He will celebrate his eightieth birthday soon and is still rolling in to fires both day and night. In addition, he was one of the founders of the Indiana Fire College at Purdue University, West Lafayette, Ind.

Chief D. G. Kropf of the Warren, Pa., Fire Department reports on an-

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- Fire Alarm
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The major portion of our expanded facilities are now devoted to the requirements of our Armed Forces, but we are supplying all requirements to the best of our ability, subject, of course, to existing regulations.

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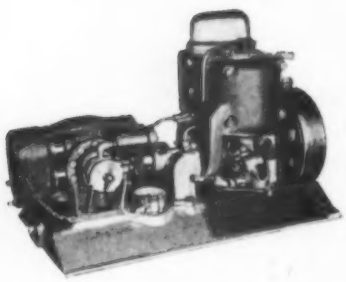
IN DEFENSE AGAINST FIRE . . .



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Hose for every Fire Department service, especially made for municipal fire fighting requirements.

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Prompt service - Quality products

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Send for illustrated folder on the New Elkhart Mystery Nozzle.

ELKHART BRASS MFG. CO.
ELKHART, INDIANA

other veteran. He states: "C. L. McNett, better known to firemen in this section as Charlie, was born at Corry, Pa., October 27, 1865. His family moved to Union City, Pa., a short time later and in 1875 at the age of ten he was made torch boy for the Hunter Hose Company in that city. He later moved to Clarendon, Pa., where a fire department was organized in June, 1882. He joined the Clarendon Fire Department as a charter member and on July 5, 1890 was elected Chief and has been serving in that capacity ever since. Today at the age of seventy-six he is very active and responds to all calls with his department. He is also very active in firemanic affairs and is the 'daddy' of the Warren County Firemen's Association."

The Editor wishes to express his appreciation to the correspondents given above for their fine cooperation in sending the material in.

Firemen to Act as Licensing Agents for Bureau of Mines

Fire Commissioner Patrick Walsh has announced that members of the New York Fire Department have been designated as licensing agents for the City of New York by the Director of the Bureau of Mines, Department of the Interior, Washington. This means that all those, excepting the Army and the Navy, who handle explosive materials must first obtain a United States License from the officials of the New York Fire Department.

Under the existing local laws the Fire Department has jurisdiction over such explosives as dynamite, drugs and chemicals, but the new Federal act is far more sweeping in scope of licensing. Hitherto the Fire Department has only had to concern itself with the finished product of explosives, but under the provisions of this new act all ingredients and compounds that enter into the manufacture of any material that might cause an explosion must be licensed.

Commissioner Walsh said that among those who would be affected are chemists, educators, analysts, investigators, vendors, purchasers and users. All college and school laboratories, for example, come under the jurisdiction of this act, and those giving such laboratory courses will be required to obtain licenses from representatives of the Fire Department. All druggists will be similarly affected, since without doubt they use in the course of their regular work explosive ingredients.

Commissioner Walsh added that there was no way at the present time for him to estimate how many people would be affected or who would require licenses but it would without doubt run into the thousands.

Chief Michael Conway in charge of combustibles has been sworn in as a Commissioner of Deeds for the purpose of taking the oaths of those applying for licenses. Chief Conway recommended other members of his Divisions to act as licensing agents with him. These are: Acting Battalion Chief Walter P. Morris; Acting Chief Inspector, Division of Combustibles, Joseph A. McCabe; Inspector of Combustibles Nathan C. Horwitz; Inspector of Combustibles Henry Hille and Inspector of Combustibles Irving Grass.

JERRY DALY.

Deferment for Firemen

(*Continued from page* 343)

Application to the local board, in my opinion, is best.

Norwood, Ohio
Thomas G. Fisher, Chief

We have not been able to secure deferment for firemen called in the draft. The Chiefs of Fire and Police went to both draft boards to secure deferment for both departments. One man joined the Ordnance Department when he was ready to be called. Another was told he was going to be reclassified from 3-A to 1-A. About five men will be called. This will be sixteen per cent of our power.

Beaumont, Tex.
S. D. O'Conor, Chief

No deferment has been allowed to date. I took it up with the local board and they cited the law which gives no deferment as a class. They did write to the State Board at Austin, but the same results were obtained there.

Houston, Tex.
Homer F. Lyles, Chief

We lost twenty men to the Army and Navy. Some of these were enlistments, while others were drafted. These men were all younger men. No deferments have been secured.

Malden, Mass.
Loran A. Keddie, Acting Chief

We have not been able to secure deferment for firemen called in the draft. We wrote to the local draft board requesting deferment, but it was denied.

Birmingham, Ala.
A. Brown, Chief

We have had very little success in securing deferment for our men.

In the beginning I was able to secure a six months deferment for a number of them. I appealed one case when one of these men was recalled for reclassification, but further deferment was refused.

Washington, D. C.
S. T. Porter, Chief

To date 293 members of this department have been classified for military service. Seventeen members have entered the military or naval service, only one of whom has actually been inducted.

Seven members are in Class 1-A. Request for their deferment on occupational grounds has been made to their respective draft boards. We are awaiting a decision in their cases. This procedure will be followed if other members are placed in Class 1-A.

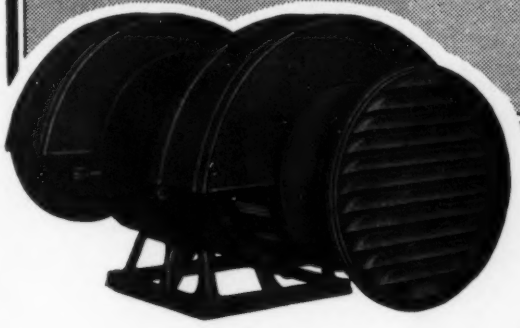
Only one appeal was made and that in behalf of the above member who was inducted. He was a single man with no dependents.

It is almost impossible to definitely state just what our status will be until after complete reclassification has been made by the various boards.

Wheeling, W. Va.
Edw. T. Rose, Chief

So far we have had only one man called. Our local board refused deferment and no appeal was made. This

BE PREPARED NOW for LATER!



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Many Hale Pumps are going into Fire Apparatus of all types, every day, to protect the industries, cities and armed forces of the United States and our Allies.

Write today for the Catalog and Folders on the complete line of Hale Pumps.

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MANHATTAN FIRE HOSE

THE MANHATTAN RUBBER MFG. DIVISION
of Raybestos-Manhattan, Inc.
Executive Offices and Factories ..... Passaic, N. J.

man has been in the service since June 17, 1940.

Providence, R. I.
Thomas H. Cotter, Chief

In the beginning we did file form D. S. S. 42 obtained from the local board for all police and firemen. This was for six months deferment. This period has now expired and we have been informed that it will be useless to file for further deferment as the boards will not grant any further deferment for policemen and firemen, except in individual cases where they could not be easily replaced. That too is only for six months.

Miami, Fla.
H. R. Chase, Chief

Our experiences with the draft have been rather sad. We have done all that we could possibly do in the way of requesting deferments because of the amount of training we have given the men. We still continue to lose them.

I think one of the worse things, however, has been the attitude that the draft board clerks have used in answering the men in such an uncertain way that they would more or less be driven into signing up with specialized branches of the service rather than to wait until their number was called and then be put into some branch of the Army or Navy that were not acquainted with. Naturally if a man has had experience in certain lines of the armed forces, which happened to be the case with many of our men, they would prefer to go back into that same branch. If they were to wait until their draft number was called, they would be denied this privilege. As a result, many of our boys joined up.

In other instances we have men that were well qualified for special work. They were denied the opportunity to enter this classification. This, however, is in cases where they have waited until they were forced to go into the service.

In the last two weeks we had a man that was exceptionally well trained in first aid work put into office work in the Army. While he is well educated and could do a certain amount of this work, he is not as proficient as he would be in the medical end.

I am in hopes that your efforts to publicized and intercede in what I consider a reckless practice of disregarding especially the coastal fire departments will result in better understanding and at least slow up this terrific drain that has taken place here in Miami in the fire department. The unfortunate part is the ultimate result of this drain. While we might be able to weather the storm now, look what it will mean to our department when the war is over and a number of these boys do not return because of death and physical defects that develop. Those that do return, in many instances, may be injured to the extent that our fire department service and our pension service will be badly hurt.

We have had thirteen men leave the department so far. We have written draft boards, appeal boards and state authorities. We also have the local defense unit working on it. Nothing has been successful.

Newport, R. I.
Abel S. Eldridge, Deputy Chief

Three men were called. We appealed to the local draft board and our application was denied.

★

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for

FIRE APPARATUS
and
FIRE DEPARTMENT SUPPLIES

When you buy from Boyer you get the BEST at the LOWEST PRICES

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LOGANSPORT INDIANA

HOW WELL IS YOUR COMMUNITY PROTECTED?

THE possibilities of incendiary bombs and fires caused by saboteurs are real! Greater responsibility than ever before is being charged to our Fire Departments. Modern, dependable fire-fighting apparatus is needed to conduct and combat modern warfare. Write today for information.

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"Fire Apparatus of Quality"

NEW YORK BRANCH
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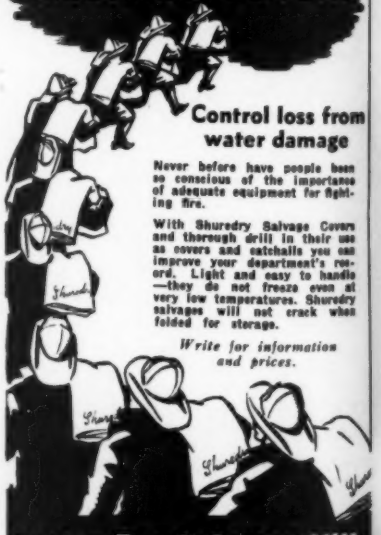
USE Shuredry SALVAGE COVERS



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Never before have people been so conscious of the importance of adequate equipment for fighting fire.

With Shuredry Salvage Covers and thorough drill in their use as covers and catchalls you can improve your department's record. Light and easy to handle—they do not freeze even at very low temperatures. Shuredry salvages will not crack when folded for storage.

Write for information and prices.

Fulton Bag & Cotton Mills
Manufacturers since 1870
Atlanta St. Louis Dallas Minneapolis
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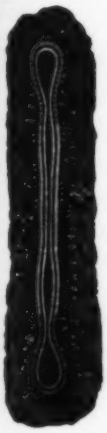
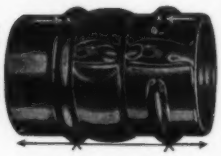
DOUBLE SERVICE
with
BI-LATERAL



This installation shows the position of the rubber lining in BI-LATERAL FIRE HOSE when held in a flattened position between calls into service. This is why we can save a city one replacement, because this hose will give double service of any hose constructed under the old method.

Also we can load 25% more on the apparatus bed actually making an $8,000 truck loaded with Bi-Lateral construction, cheaper than a $7,000 one loaded with other construction.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze) with the swivel protecting feature.



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Provides maximum protection to eyes — makes possible comfortable breathing. Sponge saturated with water does the trick.

FOG-PROOF GOGGLES

Outfit is equipped with famous "Nod & Shake" Goggles! Water placed next to lens keeps fog off!

Price Complete $48 per doz.

SAMPLE OUTFIT $4.00 POST PAID

H. S. COVER
68 CHIPPEWA ST.
SOUTH BEND, INDIANA

The Round Table

(*Continued from page* 354)

apartment house, or other building used wholly or in part for dwelling purposes."

This would mean that such storage would then be limited to garages which are separate from the house, or entail the construction of small sheds or buildings in the backyard where the garage is built in the dwelling.

However, I believe that through the medium of the newspaper and radio, people can be warned against such illegal and dangerous practices. In this manner we may be able to eliminate a great deal of trouble which would arise from such a procedure.

Irby M. Klinck, Chief, Memphis, Tenn.: The State of Tennessee has laws regulating and governing the location and capacity of containers, tanks, and/or use of combustible and/or highly inflammable liquids or semi-liquids, for the prevention of fire loss of life and property within the State of Tennessee.

The city ordinance requires the securing of a permit from the Building Commissioner. "No person, firm or corporation shall, within the city limits of Memphis, Tenn., sell or deliver to any person, firm or corporation for consumption, use or sale by the person, firm or corporation to whom the same is sold or delivered, five gallons or less of any volatile fluid unless delivered into an approved can or receptacle; and no person, firm or corporation shall be permitted to keep for consumption, use or sale more than five gallons under this arrangement; quantities in excess of five gallons shall be kept as hereinbefore provided.

"Whenever the word 'approved' occurs in this ordinance it shall be understood to mean 'approved by the Building Commissioner, and okeyed by the Fire Chief', the specifications in each case to comply with the standard of the National Board of Fire Underwriters, and to be constructed and tested under the supervision of the Underwriters' Laboratories, and to carry the label of approval of these Laboratories.

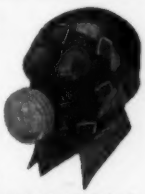
"Penalties for Non-Compliance: Be it further ordained that any person violating this ordinance be and is hereby found to be guilty of a misdemeanor, and upon conviction shall be fined not less than one dollar and not more than fifty dollars, and that each twenty-four hours of violation shall constitute a separate offense."

Luther P. Willis, Chief, Pueblo, Colo.: What we try to do is to keep the bulk stations from selling gasoline for storage purposes in residential districts. Some cooperate and some do not. It is a very difficult thing to control even in peacetime. If when making an inspection we find gasoline stored in private garages, we insist on its removal.

We have no ironclad legislation whereby we can force people to stop storing gasoline on their premises.

We have our filling station operators cooperating with us to the extent that they will not sell gasoline to anyone unless the container is painted red. They will never fill a glass jar or jug. This helps us a lot.

SEE HOW NICE IT FITS..!
ONE PIECE ONE MOVE
and Your Face Is
COMPLETELY COVERED!



Cases No. 605

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★ You can see by the above illustration how snugly the Healthguard Mask fits your face.

This mask may be worn for protection from wood smoke and numerous acid fumes and gases, by simply changing from one cartridge to another. Not a single dissatisfied user among hundreds now wearing this Healthguard Mask. Comes packed in a neat metal carrying case.

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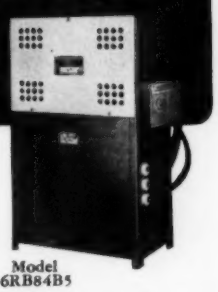
Keep Your Batteries ON THE ALERT
WITH A
TUNGAR TWO-RATE CHARGER



FOR 40-AMP. CHARGING OF 6-VOLT OR 12-VOLT BATTERIES

Model 6RB84B5

The Tungar Two-Rate Charger will completely recharge a run-down battery quickly and safely. Sizes are available for 6- and 12-volt batteries. The initial high-rate charge of 40 amperes automatically drops to a low finishing rate of 16 amperes for the last 20 per cent of the charge, then automatically cuts off.

Portable—can be easily moved to any desired location. Compact—requires less than one square foot of floor space. Complete—furnished with long D-c. leads and clips, a long A-c. lead which plugs into any convenience outlet of the proper rating, and two 99X45 Tungar Bulbs.

For more information, just write Section A625-58 Appliance and Merchandise Dept., General Electric Co., Bridgeport, Conn.

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CHECK YOUR PUBLIC BUILDINGS

NOW!

The war effort is making greater and greater demands for housing facilities to house its projects as well as its increased personnel. Many old and obsolete buildings are being called into service. They are equipped to protect the vital machinery and other equipment, but often the safety of personnel is ignored.

Now is the time, Mr. Chief, to check these weak links, see that these old buildings are adequately equipped to help you save life, if need be.

If they are not so equipped you owe it to your community to recommend the necessary equipment. You can offer no better equipment for this purpose than the POTTER SLIDE FIRE ESCAPE. These fire escapes are safe and efficient. Many hundreds of lives are saved by them every year.

The recommendations of our experienced engineers are yours for the asking, without any obligation to you.

Write for detailed literature.

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SLIDE FIRE ESCAPES

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6160 No. California Ave.
CHICAGO ILLINOIS

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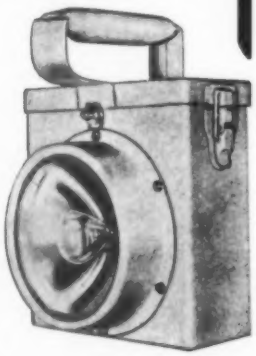
Our ● J2 2-Cell



HAND LANTERN

NOW MADE OF STEEL TO CONFORM WITH U.S.A. NATIONAL DEFENSE REQUIREMENTS

CARPENTER MFG. CO.

"Master ★ Light ★ Makers"
200 Sidney Street
Cambridge, Mass.

Charles Muirhead, Chief, Danville, Ill.: I would suggest that in order to prevent storage of gasoline in the city, that the Fire Chief contact all gasoline dealers and request them not to sell any empty oil drums to individual consumers, explaining the reason why. If storage of gasoline were to take place in anticipation of a shortage, it would most likely be in fifty-gallon oil drums, because the public would realize that storage of five or ten gallons would do no good. Because of the cost, they would not want to invest in any container larger than a fifty-gallon drum.

C. C. Killian, Chief, Fort Worth, Tex.: I would suggest that the city enact laws or ordinance prohibiting storage of gasoline and then following up the law with rigid inspection and enforcement.

In Fort Worth no person or corporation shall store or keep on or about premises more than five gallons of gasoline and only in an approved container, except they be authorized dealers or distributors who shall place such storage in approved underground tanks not less than four feet underground. Pumps shall be electric of non-visible type.

Otto M. Johnson, Jr., Chief, Easton, Pa.: I believe that plenty of newspaper and radio publicity should be given, warning the public of the danger of improper storage and transportation of gasoline. If the public were acquainted with the fact that gasoline was both tricky and dangerous, I am sure they would keep the "liquid dynamite" where it belongs. In our talks to the school children, we warn them about the misuse of gasoline. Incidentally, I might add that our local papers and radio station WEST give us splendid support in our campaign to warn the people of those dangers.

We have legislation enacted which enables us to control the hazards of unsafe storage of gasoline.

Clause 428 of the Building Code and Fire Limit of the City of Easton states: "No gasoline or other inflammable liquid shall be kept in any garage or building except in the reservoirs of automobiles, self-closing safety tanks or the buried tanks described in this Code, and it shall be unlawful for anyone to keep or store any gasoline or other inflammable liquid in excess of five gallons until application shall have been made to the Building Inspector, and a permit granted subject to the approval of the Chief of the Fire Department."

Charles DeVleeschower, Chief, South Bend, Ind.: Rules and regulations of the Fire Marshal's Office of Indiana, authorized by legislative act of 1913 and as amended in 1927, prohibit the storage of Class 2 flammable liquids in frame buildings within the fire limits of any city or town in the State of Indiana. In other than frame buildings Class 1 liquids are permitted in sealed containers or safety cans of not more than 5 gallons capacity, and not to exceed a total of 10 gallons. Class 2 liquids are likewise restricted except that a total capacity of 60 gallons may be stored in barrels or drums. Class 3 liquids may be stored in barrels or drums up to a total capacity of 150 gallons.

Manufacturers' Announcements

Pump Tank Extinguisher

The Buffalo Pump-Tank Extinguisher, developed by Buffalo Fire Appliance Corporation engineers is substantially constructed of galvanized steel, painted

Buffalo Pump Tank

red. A double-action pump assures adequate water pressure to fight the bomb at a safe distance. These extinguishers are easily carried to the point where the bomb lodges; operation is simple. A large re-fill opening at the top facilitates quick replenishing of water, during operation, if necessary.

These extinguishers are supplied in two capacities, 2½ and 5 gallons. The latter size is recommended for general industrial applications. For full details, write Buffalo Fire Appliance Corporation, 44 Central Avenue, Buffalo, N. Y.

Tat Blankette Demonstrated at Edgewood Arsenal

The Soilicide Laboratories recently demonstrated their Tat Blankette before the Protective School of Civilian Defense.

The test was conducted on a wooden platform, approximately four foot square, and mounted six inches above the ground. An incendiary bomb was set off and allowed to burn for one full minute. At the end of this time, O. E. Linck, President of Soilicide Laboratories, Montclair, N. J., placed a Tat Blankette alongside of the molten mass, which had been the bomb, and then shoveled the molten material on top of the Blankette. It was then covered with another Tat Blankette. To make certain that sufficient covering was on this molten mass, and additional Blankette was placed thereon. After this a half pail of water was thrown on the Blankettes to show that the covering of the Blankette is impervious to water and does not permit the explosive action which normally occurs when water in large quantities comes in contact with molten magnesium. There is no sputtering or scattering action when the ingredients of Tat

"ALL AMERICAN CHOICE"
INVINCIBLE NOZZLES
PREPARE — PROTECT
Portable equipment is the watchword of today.
Buy—
INVINCIBLE NOZZLES
and enjoy the benefits derived by experience of the pioneers in the nozzle field.

Fig. 403

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Successors to A. J. Morse & Son, Inc.
BOSTON, MASS.
1837 - - 1941

A BADGE
to be proud of
NOW
more than ever!
BEFORE!

Now — because of the government's prohibition of the use of nickel, brass, copper, nickel plating, and chromium — we are making these badges and insignia in sterling silver, sterling silver gold plated, rolled gold on sterling silver and 14 karat gold.

Today — for just a little more, you get a sterling silver Braxmar Badge — without doubt the best badge you can buy anywhere.

The blue covered catalog is the latest published but write for our new price list. Only prices in the catalog on 14 karat gold items are still in effect. All auto plates are discontinued for the duration.

C. G. Braxmar Co., 242 W. 55th St., N. Y.

BRAXMAR BADGES
Standard for over 60 years

Blankette come in contact with the molten magnesium. The bomb was controlled in approximately twenty seconds from the time that the Blankette was placed over it.

A Tat Blankette weighs twenty pounds, measures eleven and a half inches by nineteen and a half inches, and has a depth of two inches when flattened.

New Defense Bulletin

Essential emergency safety equipment for plant protection and public safety departments is described in the new eight-page, illustrated Defense Bulletin just issued by Mine Safety Appliances Company. This new bulletin, covering the complete range of safety equipment needed during war-time conditions, shows on the cover a suggested grouping of essential items at strategic locations in plant or municipal buildings. Inside pages include descriptions of gas masks, helmets, gas detectors, inhalators, asbestos suits, goggles, respirators, first-aid kits, Foille for burns, stretchers, splints and fire blankets.

In addition, the bulletin introduces three new special items: the M. S. A. Steel Helmet, the M. S. A. Defense First Aid Belt and the M. S. A. Combination Traction Splint.

Copies of this new bulletin may be secured by writing direct to Mine Safety Appliances Company, Braddock, Thomas and Meade Streets, Pittsburgh, Pa. Ask for Bulletin No. G-5.

Air Raid Chutes

"Slide Type Fire Escapes are daily becoming recognized by many as the quickest and safest exit from buildings two stories and higher," states the Potter Manufacturing Corporation, of Chicago, Ill. While their primary use for more than thirty years has been for quick escape from fires and explosions, they now offer an added function in case of air raids. Full information will be furnished on request mailed to the company at 6160 North California Avenue, Chicago, Ill.

Catalogue Issued

A catalogue entitled "When Every Minute Counts!" describing the Aero Automatic Fire Detecting and Alarm System has been recently issued by the American District Telegraph Company.

Copies may be secured by writing that company, 155 Sixth Avenue, New York City.

Scott Names New Curtis Transport Plane

Howard A. Scott, former Branch Manager of the Pittsburgh office of the Fabric Fire Hose Company, Sandy Hook, Conn., now employed in The Curtis Wright Corporation, Airplane Division, Buffalo, N. Y., received high honors at the Christening Ceremonies on May 23 for suggesting the name of "Curtis-Commando" for the new C-46 world's largest twin-engine troop transport and cargo plane. The name is indicative of the mission it will perform. Mr. Scott was well known among the many fire chiefs of Pennsylvania and New York.

QUAKER
FIRE HOSE
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THE JOB

Turning out hundreds of thousands of feet of Fire Hose at top speed for Defense.

So, if your order is a little late—you will know—we're giving Uncle Sam the right of way.

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SEALAND TRAILER PUMPS
These mobile trailers made in 150, 250 and 500 gallon units are powered with gasoline motors, carry 500 ft. of double jacket Fire hose, and may be equipped with 100 gallon booster tanks. Skid mounted units can be furnished. Pumps can be purchased without trailers.
THE SEALAND CORP.
Centrifugal Pumps—Fire Alarm Systems—Modern Fire Apparatus
SAUGATUCK, CONN.

War Times Increase Fire Hazards

INSTALL M H

VALVES
HYDRANTS
and pipe line accessories

A. W. W. A.
HYDRANTS
Underwriters Approved

Conform to American Water Works Association specifications. Approved and listed by Underwriters' Laboratories and Associated Factory Mutuals. Well known and widely used for many years.

Emergency fire fighting facilities may be often improved by installing more valves and hydrants than normal, also keeping larger stock of extras for emergency. M & H products are well known for high quality and expert workmanship, have been widely used for many years.

VALVES: A. W. W. A. types, iron body, bronze mounted with double-disc parallel seat or solid wedge type. Non-rising stem, outside screw and yoke; or with sliding stem and lever. Also furnished hydraulically operated. Square Bottom type operates in any position. All are rugged and dependable, made of best material with highest quality workmanship.

M&H VALVE
AND FITTINGS COMPANY
ANNISTON, ALABAMA

ADVERTISING INDEX

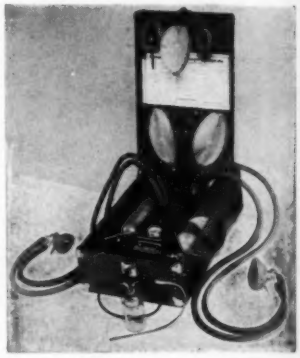
FIRE ENGINEERING

JUNE, 1942

	Page
Acme Protection Equipment Co.	368
American-LaFrance-Foamite Corp.	330-331
American Marsh Pumps, Inc.	364
Bi-Lateral Fire Hose Co.	375
Boyer Fire Apparatus Co.	374
Braxmar Co., Inc., C. G.	377
Buell Mfg. Co.	368
Buffalo Fire Appliance Corp.	329
Carpenter Mfg. Co.	376
Chicago Eye Shield Co.	375
C-O-Two Fire Equipment Co	366
Coventry Climax Engines, Ltd.	Inside Front Cover
Cover, H. S.	375
Daniels, Inc., C. R.	371
E & J Mfg. Co.	334
Eddy Valve Co.	366
Elkhart Brass Mfg. Co.	372
Emerson Co., J. H.	378
Federal Electric Co.	327
Fog Nozzle Co.	Back Cover
Four Wheel Drive Auto Co.	352-353
Fulton Bag & Cotton Mills	374
Gamewell Company	371
General Electric Co.	375
Hale Fire Pump Co.	373
Harrington Signal Co.	369
Hewitt-Rubber Corp.	372
Homelite Corp.	367
Koehler Mfg. Co.	370
LaBour Co., Inc.	360
M. & H. Valve & Fittings Co.	378
McIntire Brass Works, F. N.	377
Mack Mfg. Corp.	332-333
Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc.	374
Midwestern Mfg. Co.	370
Mine Safety Appliances Co.	362
Pacific Marine Supply Co.	372
Porter, Inc., H. K.	370
Potter Mfg. Corp.	376
Quaker Rubber Corp.	377
Rockwood Sprinkler Co.	365
Sealand Corp.	377
Smith & Co., D. B.	361
Sterling Siren Fire Alarm Co., Inc.	373
Victor Industries	364
Ward LaFrance Truck Corp.	374
Waterous Co.	363
Wooster Brass Co.	369

In Wartime . . . .

THE EMERSON RESUSCITATOR



Now, more than ever, fire departments must protect their communities against unnecessary asphyxial deaths from smoke suffocation, drowning, electric shock, and other causes, in addition to providing maximum insurance against wartime emergencies.

The Emerson Resuscitator has a definite place in the protection of your community.

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Cambridge, Mass.

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BOOKS... needed by progressive fire fighters now more than ever

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A 254 page book, 185 illustrations, flexible Fabrikoid binding, by Fred Shepperd, Editorial Director of FIRE ENGINEERING.

Brings thoroughly up-to-date the subject of hydraulics as it pertains to every phase of fire-fighting—in simpler, more understandable and more complete form than ever. Not only that, it embraces, as well, many important new angles that have never before been covered anywhere. There are several brand new formulas, originated by Mr. Shepperd, and even old ones have been simplified or revised for greater accuracy.

"Fire Service Hydraulics" is a book every progressive fire fighter from the Chief down needs and should have.

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A 310 page book, fully illustrated, by Geo. J. Kuss, Former Deputy Chief, New York Fire Department, and Fred Shepperd, Editorial Director of FIRE ENGINEERING. Contains questions asked at promotional examinations in practically every city in the country where civil service examinations are held, with answers.

Includes chapters on Report Writing, How to Answer Examination Questions, Chemistry Examination Questions, Fire-Fighting Questions, Overhauling, Ventilation, Fire Prevention, Inspection, Evolutions, Drills, Use of Apparatus, Rescue Work, and in fact all the topics covered by the fire department promotional examinations.

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PROMOTIONAL STUDY COURSE FOR FIREMEN

By Fred Shepperd. Published in response to numerous requests from fire department officers and men working for advancement, this new book embraces the famous "Promotional Study Course" which ran serially in FIRE ENGINEERING during the past few years and proved to be so tremendously popular. Covering in chapter lessons most of the important phases of fire protection promotional study—mainly in questions and answers form—all of it is in the concise style generally used and preferred by civil service examiners.

To fire chiefs and other officials responsible for preparing examinations, this book will be found most helpful. And it is a mighty good reason, too, why fire officers and men should find it of inestimable value in studying for advancement.

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